

# ∞ Türk Psikiyatri Dergisi ∞

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**TÜRKİYE PSİKİYATRİ DERNEĞİ**  
**YILLIK TOPLANTISI VE 2. ULUSLARARASI**  
**26. ULUSAL KLİNİK EĞİTİM SEMPOZYUMU**  
**BİLDİRİ ÖZETLERİ**

TÜRKİYE  
SINIR VE  
RUH SAĞLIĞI  
DERNEĞİ



# Türk Psikiyatri Dergisi

## Turkish Journal of Psychiatry

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*TÜRKİYE PSİKIYATRİ DERNEĞİ YILLIK TOPLANTISI VE  
2. ULUSLARARASI 26. ULUSAL KLİNİK EĞİTİM SEMPOZYUMU*

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## Hoş Geldiniz | Welcome

**Değerli Meslektaşlarımız,**

Türkiye Psikiyatri Derneği Yıllık Toplantısı ve 2. Uluslararası 26. Ulusal Klinik Eğitim Sempozyumunu siz değerli uzman ve uzmanlık öğrencileri meslektaşlarımızın katılımıyla 9-12 Mayıs 2024 tarihleri arasında Mersin Üniversitesi Prof. Dr. Uğur Oral Kültür Merkezi'nde gerçekleştireceğiz.

Yirmi yedi yıl önce, derneğimizin tüm organlarının yıllık toplantılarını yapacakları, çalışma birimlerinin bir araya gelecekleri ve katılabilen tüm üyelerle dernek politikalarının konuşulup tartışılabileceği bir platforma gereksinim duyulduğu için başlatılan Bahar Sempozyumları yıllar içinde kendini geliştirerek ve yenileyerek Türkiye Psikiyatri Derneği'nin 29 yıllık birikimi ve siz değerli katılımcılarımızın katkılarıyla 2022 yılından beri uluslararası nitelik kazandı. Artık **Uluslararası Klinik Eğitim Sempozyumu** adını kullanmanın, bu gelişim yolculuğunda birlikte olmanın gururunu ve mutluluğunu paylaşıyoruz. Etkinlik önerilerinizin, araştırma ve olgu sunularınızın, sözel veya poster bildirilerinizin bilimsel içeriği daha da zenginleştireceğine inanıyoruz. Tüm etkinlik önerileri hakem kurulunca değerlendirilecek, değerlendirme sonucu Sempozyum bilimsel programında yer verilen etkinlik konuşmacılarının kongre kayıtları Derneğimiz tarafından karşılanacaktır.

Derneğimizin geleceği olan genç meslektaşlarımızı ve onların emeğini güçlendirmek adına sözel bildiri ile başvuran uzmanlık öğrencilerine Sözel Bildiri Burs Desteği bu sempozyumda da devam ediyor. Meslek alanımızın bilimsel niteliğini ve bilime olan ilgiyi artıracaklarını düşündüğümüz Araştırma Projesi Teşvik ödülünü de hatırlatmak isteriz.

Sempozyumu bu yıl da hibrit olarak gerçekleştireceğiz. Arzumuz sizlerle aynı mekânda bir arada olmak. Yüz yüze katılmayı tercih eden meslektaşlarımızla yeşille mavinin iç içe geçtiği Mersin Üniversitesi Kampüsü'nün doyumsuz güzelliğinde, çevrim içi katılmayı tercih eden meslektaşlarımız için ise bilimsel programı iki salondaki tüm oturumları bilgisayarlarından izleyebilecekleri şekilde düzenliyoruz. Etkinlik önerisi veren meslektaşlarımıza tüm konuşmacıların yüz yüze salonlarda bulunmaları gereğinin altını çizmek isteriz.

Hedefimiz ulaşılabilir bir kongre gerçekleştirmek, mesleğimiz adına yürüttüğümüz zahmetli ama nitelikli mücadelenin ve yolculuğun içinde hep birlikte yol almaktır. Ekonomik açıdan giderek zorlanılan bu dönemde, başta endüstri olmak üzere kongrelere yapılan mali desteklerin azalması diğer yandan kongre maliyetlerinin astronomik ölçülerde artması birçok meslek kuruluşunda olduğu gibi bizim için de yeni yaklaşımları zorunlu kılmakta. Sempozyum'a erişimin lüks değil ihtiyaç olduğu bilinci ile "şehir kongresi" düzenlemenin gerekliliğine inandık, kendi olanakları ile katılacak meslektaşlarımız için ulaşılabilir bir etkinlik olsun istedik. Pek çok insana 6 Şubat 2023 depremlerinin ardından güvenli bir yerleşim sunan Mersin'in hem bölgeye yakınlığı hem de tarihi ve kültürel dokusu bilimsel ve mesleki gelişimimize farklı bir anlam katacak. Bizlere kapılarını açan ve tüm imkânlarını seferber eden Mersin Üniversitesi'ne, değerli yöneticilerine ve Ruh Sağlığı ve Hastalıkları Anabilim Dalı'na şükranlarımızı sunarız.

Mersin Üniversitesi Prof. Dr. Uğur Oral Kültür Merkezi'nde gerçekleşecek olan 2. Uluslararası 26. Ulusal Klinik Eğitim Sempozyumunda sizleri aramızda görmeyi sabırsızlıkla bekliyor, varlığınız ve katkılarınız ile güçlenecek ve güzelleşecek etkinliğimiz için gün sayıyoruz.

Sağlıkla ve mesleki dayanışmayla dolu bir toplantıda buluşmak üzere...

Saygılarımızla,

**Ejder Akgün YILDIRIM**  
Türkiye Psikiyatri Derneği  
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# TÜRKİYE PSİKİYATRİ DERNEĞİ YILLIK TOPLANTISI VE 2. ULUSLARARASI 26. ULUSAL KLİNİK EĞİTİM SEMPOZYUMU

9-12 MAYIS 2024  
MERSİN ÜNİVERSİTESİ ÇİFTLİKKÖY KAMPÜSÜ,  
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**BİLDİRİ ÖZETLERİ  
KİTABI**





# RESEARCH AWARD CANDIDATES



## RAC-1

## COMPARISON OF COGNITION AND FUNCTIONING IN PATIENTS WITH BIPOLAR DISORDER WITH AND WITHOUT PSYCHOSIS HIGH-RISK SYNDROME

**Simge Uzman Özbek<sup>1</sup>, Burcu Verim<sup>2</sup>, Aybüke Küçükakdağ<sup>2</sup>, Ezgi Cesim<sup>2</sup>, Berna Yalınçetin<sup>2</sup>, Tevhide Ekin Sut<sup>3</sup>, Neslihan İnal Emiroğlu<sup>3</sup>, Emre Bora<sup>4</sup>**

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**BACKGROUND AND AIM:** Bipolar disorder (BD) emerges with the onset of characteristic clinical symptoms in late adolescence and young adulthood (Bellivier 2014). Since this period of life is particularly important in terms of professional and social formation, BD might lead to serious disabilities (Wittchen 2010). However, not all patients with BD display similar characteristics. Bipolar disorder is a highly heterogeneous disease in terms of clinical course, neurocognitive and social-cognitive features, and functioning.

There is a significant overlap between BD and schizophrenia, given the shared biological basis, genetic evidence, the results of neuroimaging studies, and common neurodevelopmental features (Bellivier 2013, Park 2022). For these reasons, there are difficulties in making an accurate diagnosis in the early stages of these disorders. One disorder can later be converted into another disorder (for example, an adolescent diagnosed with bipolar disorder can have a diagnosis of schizophrenia in adulthood) (Mcgorry 2018).

Given the overlap between BD and schizophrenia, psychosis high-risk criteria that persist during euthymia may define a subgroup that differs in clinical features and functioning. In this study, we defined a subgroup of BD as ‘Bipolar Disorder with Co-occurring High-Risk for Psychosis (BD-HRP)’. Our main aim was to investigate the differences in neurocognition, social cognition, psychosocial functioning, thought disorder, and clinical features in this subgroup and compare them with the BD group without this syndrome.

**METHODS:** This study was conducted at Dokuz Eylül University, Department of Psychiatry. 77 individuals between the ages of 15 and 35 who were diagnosed with bipolar disorder within the last 10 years (the patient first met the DSM-IV criteria for a BD within 10 years) were included in the study. If the patient was not clinically stable at the first evaluation, the clinical assessments and cognitive tests were performed after euthymia was established. Patients were assessed for the history of psychosis risk during interepisode periods with a Turkish version of Structured Interview for Prodromal Syndromes (SIPS). The psychotic symptoms during manic or depressive episodes were not taken into account in the SIPS interview. Hereby, a total of 25 participants were

included in the ‘Bipolar Disorder with Co-occurring High-Risk for Psychosis (BD-HRP)’ group. 52 of participants were included in the ‘Bipolar Disorder without Co-occurring High-Risk for Psychosis (BD-nonHRP)’ group. Clinical features, cognition, functionality, thought disorder, apathy, impulsivity, and schizotypy were compared between the groups.

The ethics committee approval of this study was obtained from Dokuz Eylül University Non-invasive Research Ethics Committee. Decision No: 2022/22-11

**RESULTS:** Individuals with BD-HRP showed a higher rate of psychotic features in their manic episodes, and they displayed more Schneiderian symptoms in psychotic manic episodes ( $p=0.049$ ) (Table 1).

The scores of anticipatory anhedonia ( $F=5.27$ ,  $p=0.024$ ) and positive formal thought disorder were higher in BD-HRP ( $F=4.486$ ,  $p=0.037$ ) (Table 2).

BD-HRP group displayed worse functioning ( $F=14.153$ ,  $p<0.001$ ) (Table 2). The differences between groups were found to be significant separately for the 4 sub-items (socially useful activities, personal and social relationships, self-care, disturbing and aggressive behaviors) evaluated in the PSP scale. In self-report evaluations impulsivity, self-report apathy, and schizotypy scores in the BD-HRP group were significantly higher than the BD-nonHRP group ( $F=5.305$ ,  $p=0.024$ ,  $F=5.487$ ,  $p=0.022$ ,  $F=22.759$ ,  $p<0.001$ , respectively) (Table 2).

Analysis for cognition were controlled for sex and years of parental education. There were no statistically significant differences between BD-HRP and BD-nonHRP in the WAIS -general knowledge subdomain, WCST-number of categories achieved and WCST-number of perseverative errors subdomain ( $p>0.05$ ). No differences were found in SCIP subdomains (verbal learning, working memory, verbal fluency, delayed recall, and psychomotor speed) or total scores between groups. No statistical differences were found between bipolar disorder groups with and without psychosis risk regarding Penn Emotion Recognition Task and RMET ( $F=0.015$ ,  $p=0.904$ ,  $F=0.536$ ,  $p=0.467$ , respectively).

In exploratory correlation analyses, a dimensional evaluation was conducted by including all participants with BD (without dividing groups into psychosis high-risk or not). History of subthreshold psychotic symptoms ( $p$  total score), negative symptoms (BNSS total score), schizotypy scores (SPQ total), apathy scores (DAS total) and impulsivity scores (BIS total) were significantly associated with worse current functioning (PSP scores) ( $r=-0.26$ ,  $r=-0.43$ ,  $r=-0.34$ ,  $r=-0.32$  and  $r=-0.24$ , respectively). Negative symptoms (BNSS total scores and apathy scores (DAS) were significantly associated with worse premorbid functioning (PAS scores) ( $r=0.24$  and  $r=0.32$ , respectively).

**CONCLUSIONS:** The original point of this study was that it was the first study to examine high-risk criteria for psychosis in euthymic bipolar patients and that many cognitive and clinical parameters were evaluated in detail. Our results highlight the multidimensional nature of the serious psychiatric disorders.

The most noteworthy difference between the PHR-BD and nonPHR-BD groups was functioning. The risk group we have allocated may represent a group with a more clinically severe course rather than impaired cognition. Poorer functioning and higher self-report apathy and impulsivity scores also indicate this point. Considering the clinically



and cognitively heterogeneous nature of BD, subgroups should be defined so that specific and personalized interventions can be made. If euthymic period findings that pose a risk for psychosis are noticed in the early stages of bipolar disorder, early intervention strategies can be developed, just like in the period before the first episode of psychosis. It is important to recognize the risk of psychosis and the predictors of clinical course in order to develop correct intervention strategies.

Genetic, neurobiological, and neuroimaging studies are needed to elucidate the underlying mechanisms of the between-group differences. Elucidating these mechanisms will be valuable in terms of distinguishing groups with clearer boundaries. The cross-sectional characteristics of the PHR group may help identify the subgroup that will develop into a psychotic disorder in the future. However, longitudinal follow-up studies are required.

**Keywords:** psychosis, bipolar, high-risk, cognition, functioning

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**Table 1.** Sociodemographic and Clinical Characteristics of Patients, Features of Mood Episodes

	BD-HRP (n=25)	BD-nonHRP (n=52)		
	M (sd)	M (sd)	F	p
Age	23.48(5.18)	23.96(4.64)	0.168	0.683
Education (years)	13.32(2.59)	14.1(2.39)	1.688	0.198
Parent Education (years)	8.83(3.6)	9.13(4)	0.094	0.76
CPZ Equivalents	281.1(275.98)	214.59(214.231)	1.344	0.25
			$\chi^2$	p
Gender F/M	16/9	33/19	0.002	0.963
History of cannabis use (%)	28%	19.2%	0.755	0.385
History of other substance use (%)	4%	9.6%		0.657 a
Antipsychotics (%)	80%	73.1%	0.435	0.0509
Mood Stabilizers (%)	96%	82.7%		0.153 a
Antidepressants (%)	20%	21.2%	0.014	0.907
	M(sd)	M(sd)	F	p
Age of onset	19.6(4.09)	21.06(4.7)	1.762	0.188
Number of depressive episodes	5(4.53)	3.21(3.8)	3.302	0.073
Number of manic episodes	2.88(3.75)	2.23(3)	0.671	0.415
Age of onset of subthreshold depressive symptoms	15.52(5.17)	17.21(3.8)	2.163	0.147
Age of onset of subthreshold manic symptoms	19.16(4.11)	20.5(4.75)	1.459	0.231
			$\chi^2$	p
History of mania with psychotic features (%)	68%	44.2%	3.82	0.051
Schneiderian symptoms during psychotic mania (%) b	41.2%	13%		0.049* a
History of depression with psychotic features(%)	%52.4	24.4%	4.86	0.028*
Schneiderian symptoms during psychotic depression (%) c	27.3%	10%		0.331 a
History of depression with melancholic features (%)	63.6%	61.9%	0.018	0.892

BD-HRP (Bipolar Disorder with Co-occurring High-Risk for Psychosis); BD-nonHRP (Bipolar Disorder without Co-occurring High-Risk for Psychosis); CPZ ( chlorpromazine); M (mean), SD ( standard deviation); a =Fisher's exact test; b= among individuals with history of psychotic mania; c= among individuals with history of psychotic depression

**Table 2.** Functioning (PSP-PAS), Self Reports, Negative Symptoms, Thought Disorder; means and standard deviations by group

	BD-HRP (n=25)	BD-nonHRP(n=52)		
	M (sd)	M (sd)	F	p
-Socially useful activities	2(1.15)	1.21(1.19)	7.520	0.008*
-Personal and social relationships	1.68(0.95)	1(0.86)	9.850	0.002*
-Self-care	0.24(0.44)	0.08(0.27)	4.081	0.047*
-Disturbing and aggressive behaviors	0.6(0.65)	0.17(0.43)	15.18	0.001*
PSP Total	60.72(11.98)	72.37(13.05)	14.153	<0.001*
PAS Total	0.24(0.15)	0.14(0.1)	12.44	0.001*
SPQ Total	41.13(15.51)	23.54(14.67)	22.759	<0.001*
BIS Total	71.2(12.91)	64.12(12.51)	5.305	0.024*
DAS Total	34.4(10.46)	29.04(8.87)	5.487	0.022*
BNSS Total	5.08(7.43)	3.21(5.25)	1.619	0.207
-BNSS MAP	3.68(4.74)	2.37(4.01)	1.612	0.208
-BNSS Diminished Expression	1.4(3.4)	0.85(2.4)	0.678	0.413
-BNSS 3 (Anticipatory Anhedonia)	0.52(0.82)	0.42(0.96)	5.273	0.024*
SAPS FTD	2(3.84)	0.44(2.55)	4.486	0.037*
-Poverty of thought	0.6(0.5)	0.7(0.56)	0.522	0.473
-Disorganization of thought	0.5(0.61)	0.32(0.48)	1.63	0.207
TLI Total	1.1(0.71)	1.02(0.79)	0.137	0.712

BD-HRP (Bipolar Disorder with Co-occurring High-Risk for Psychosis); M (mean), SD (standard deviation); PSP (The Personal Social Performance Scale); PAS (Premorbid Adjustment Scale); SPQ (Schizotypal Personality Questionnaire); BIS (Barratt Impulsivity Scale); DAS (Dimensional Apathy Scale); BNSS (Brief Negative Symptom Scale); BNSS-MAP (Motivation and Pleasure); SAPS FTD (Scale for the Assessment of Positive Symptoms, Formal Thought Disorder); TLI (The Thought and Language Index)



## INVESTIGATION OF THE RELATIONSHIP BETWEEN SOCIAL COGNITIVE PERFORMANCE AND SOCIAL COGNITION-RELATED COMT GENE POLYMORPHISMS IN PATIENTS WITH OPIATE USE DISORDER

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**BACKGROUND AND AIM:** Opioid use disorder is a chronic condition characterized by periods of relapse and remission, requiring long-term treatment and disrupting individual, social, and occupational functioning. It is known that there are deficits in social cognitive performance at various stages of opioid use disorder. The role of polymorphisms in the COMT gene in the etiology of opioid use disorder is known, and these polymorphisms are also associated with social cognitive performance. This study aims to investigate whether the performance in different subdomains of social cognition in opioid use disorder cases is associated with single nucleotide polymorphisms (SNPs) in the COMT gene, which have previously been linked to the disorder, and additionally to examine the impact of genetic differences on predicting the degree of functioning in opioid use disorder and the influence of neurocognitive and social cognitive performance.

**METHODS:** The study included 93 male patients diagnosed with opioid use disorder according to DSM-5 criteria who applied to the AMATEM Neighborhood Clinic, as well as 70 healthy male volunteers matched with them in terms of education and gender. Participants were given a sociodemographic data form, Structured Clinical Interview for DSM-5 Disorders (SCID-5-CV), Clinical Global Impression Scale (CGI), Addiction Profile Index (API), Clinical Opioid Withdrawal Scale (COWS), and Personal and Social Performance Scale (PSPS). Social cognitive performance was assessed using the Nine Eylül Mind Reading Scale (DEZİKÖ) and the Reading the Mind in the Eyes Test (RMET), while neurocognitive performance was evaluated using the Wisconsin Card Sorting Test (WCST), Verbal Fluency Test (VFT), and Trail Making Test (TMT). Genetic examinations were conducted for the COMT (rs4680) gene region using a real-time PCR device.

The research was reviewed and approved by the Ethics Committee of Ankara City Hospital, Department No. 2 (Approval Number: E2-21-558). The budget for the materials required for genetic examinations in the study was provided with the support of the Scientific Research Projects Unit of the Republic of Turkey Ministry of Health Sciences University (Project Number: 2021/175).

**RESULTS:** In our study, significant differences were found in terms of neurocognitive performance between patients with opioid use disorder and healthy participants. Patients exhibited worse performance in SAT, WCST, and TMT compared to healthy controls, indicating impairment in neurocognitive domains such as attention, psychomotor speed, and executive functions. Additionally, significant differences were found

in DEZİKÖ scores between patients with opioid use disorder and healthy participants. Patients showed poorer performance in DEZİKÖ compared to healthy controls, suggesting a significant decrease in theory of mind skills. The groups showed comparable characteristics in the Reading the Mind in the Eyes Test. Our study also demonstrated significant relationships between social cognitive performance and cognitive functions. When evaluated in terms of COMT polymorphism, a statistically significant Group × COMT polymorphism interaction was found in terms of social cognitive performance. Regarding functionality, patients were markedly behind healthy controls in PSPS. However, it was revealed that genetic polymorphism, neurocognitive, and social cognitive performance have an impact on functionality.

**CONCLUSIONS:** In this study, significant impairments in social cognitive performance were demonstrated in patients with opioid use disorder compared to healthy controls. The patient group also lagged behind healthy controls in terms of neurocognitive performance. A Group × COMT polymorphism interaction was found in terms of social cognitive performance, while a similar interaction was not obtained in neurocognitive performance. Identifying factors that may serve as endophenotype candidates related to social cognition and tracing the genetic factors associated with social cognition in opioid use disorder, which has a heterogeneous genetic basis, may shed light on the foundations of this disease and help determine guiding strategies in treatment. In addition, considering that social cognitive skills significantly affect individual and social functionality, treatment interventions and methods focusing on this area may enhance patients' social and occupational functionality and enable coping with the burden of illness. Therefore, there is a need for comprehensive studies that evaluate various subdomains of social cognitive performance, enriched with larger samples and measurement methods, supported by neuroimaging findings.

**Keywords:** opiate use disorder, social cognition, neurocognition, COMT, single nucleotide polymorphism

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## EXPLORING AGE-AT-ONSET TYPOLOGIES IN A SAMPLE OF TURKISH HOMICIDE OFFENDERS WITH PSYCHOTIC ILLNESS

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**BACKGROUND AND AIM:** Psychosis significantly increases the risk of homicidal behavior, necessitating an understanding of pathways to lethal violence in psychotic disorders. Hodgins (2008) proposed creating a typology, namely early and late starter model (age-at-onset typology), for offenders with psychosis to understand diverse criminal pathways. The formulation addresses the age of onset of antisocial behaviors, exploring pathways related to illness or criminogenic factors. It identifies distinct developmental trajectories and categorizes individuals into early starters (ES) or late starters (LS) based on when they begin offending behavior relative to the onset of psychotic symptoms. In ES, general markers of antisociality are more common, with substance abuse or personality disorders (PD) playing a significant role in offending behavior, whereas LS focus more on psychotic symptoms as violence drivers than ES (Simpson et al. 2015). The revised model introduces a subset of LS (late late starters or late first offenders; LFO) proposed to have low substance misuse, no history of violence or antisocial behavior, chronic severe mental illness symptoms, and a later single serious violent offense (Penney et al. 2023, van Dongen et al. 2014).

This model offers insights for risk assessment and management, but the available research overlooks homicidal offenders, hindering the understanding of diverse pathways in homicidal offending in psychosis. We aimed to test the age-at-onset model in a Turkish sample of individuals with psychotic illness who committed homicide to identify potential unique trajectories between psychosis and homicide, also seeking to justify the existence of LFO as a distinct subgroup. We hypothesized that i) ES would show higher rates of substance misuse and PD compared to LS and LFO, and ii) LFO would have more similarities than differences with other LS.

**METHODS:** The study included 124 subjects diagnosed with schizophrenia and related psychotic disorders, charged with homicide and referred to the Forensic Psychiatry Unit between January 2008 and January 2023 for assessment or treatment. Building on existing research and theory, the data was gathered through a comprehensive review of records. Two reviewers examined sociodemographic, clinical, forensic and homicide-related variables [IRB Approval Date: 13.01.2023 – No: 23/1].

**Subjects were categorized into two subgroups:** ES and LS, based on previous studies (Penney et al, 2023). ES were individuals whose first criminal charge occurred before the onset of their illness, while LS had their first criminal charge after the onset of their illness. Our classification resulted in 38 ES (30.6%) and 86 LS (69.4%). A subset of LS was identified as a third group, referred to as LFO (n=16), aligning with three-group models proposed by previous studies. LFO met specific criteria: i) committing the index homicide as their first offense, ii) being at least 35 years old at the time of this index homicide, and iii) having a minimum 10-year gap between the onset of illness and the index homicide. The selection of age 35 as a cut-off aimed to distinguish later onset mental illness, aligning with other studies and Hodgins' three-group model, while the 10-year duration was used as a proxy for

chronic mental illness, consistent with prior research (Simpson et al. 2015).

Following between-group comparisons among the ES, LS, and LFO subgroups, a bivariate analysis compared all variables between the ES and LS subgroups, with LS combined with LFO to ensure statistical power for subsequent regression analyses. Variables with p-values below 0.10 in the bivariate analysis underwent univariate logistic regression to identify unique factors associated with the ES subgroup, followed by a multivariate logistic regression to examine independent predictors of belonging to the ES subgroup.

**RESULTS:** Table 1 compares the descriptive characteristics between ES, LS, and LFO subgroups. Comorbid PD, identified in 29.8% of the entire sample, were detected in nearly half of the ES subgroup, significantly higher than in LFO. Half of the ES had a prior offending history, which was significantly higher than in the other subgroups. Co-offenders were involved in one-tenth of the homicide cases in the ES, significantly more than in the LS. A bivariate analysis comparing ES with LS (combined with LFO) revealed significant p-values (<0.10) for education, lifetime drug misuse, PD, illness duration, age at illness onset, prior offending, age at first offense, recidivated homicide, co-offender at index homicide, and lack of criminal responsibility, which were included in subsequent univariate regression analysis.

Table 2 shows univariate and multivariate analyses exploring factors associated with ES versus LS subgroups, with LFO included in the LS. According to univariate and multivariate analyses, ES exhibited a higher likelihood of prior offending and a shorter duration of illness until the index homicide compared to LS. Univariate analyses also indicated associations between being in the ES subgroup and lower education, presence of a comorbid PD, a younger age at the first offense, and involving co-offenders during the index homicide.

**CONCLUSIONS:** Prior offending and a shorter duration of illness until the index homicide predicted membership in the ES group versus LS group. ES tend to commit other offenses before engaging in a lethally violent offense. Furthermore, the period between the prior offense and the next offense is shorter for this subgroup. Lower education, presence of a comorbid PD, a younger age at the first offense, and involving co-offenders during the index homicide is also associated with ES. In addition to being conducted in a hard-to-reach population, another significant aspect of this study is that it is the first to identify a subset of psychosis among homicide offenders, termed LFO, none of whom had a personality disorder, unlike ES. The distinction between LFO and LS is unclear, suggesting LFO may represent an intensified form of LS with distinct features (Penney et al. 2023). In ES, a disadvantaged background, including lower education, and a higher frequency of PD, is consistent with previous findings (Simpson et al. 2015). ES exhibit better sociability (Schanda et al. 1992), which may explain their more frequent involvement with co-offenders. Age-at-onset subgroups require diverse risk profiling and approaches through an improved understanding of their characteristics. Effective interventions should employ a multi-modal approach, addressing the balance between illness-related and criminogenic needs through psychological and pharmacological therapies.

**Keywords:** criminality, forensic psychiatry, psychosis, risk profiling, schizophrenia, violence

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**Table 1.** Background and offense-related characteristics of the sample classified according to starter typologies

	Total (N = 124)	ES (n = 38)	LS (n = 70)	LFO (n = 16)	
	Per cent / mean (SD)	Per cent / mean (SD)	Per cent / mean (SD)	Per cent / mean (SD)	test statistics, p
<b>Background/ clinical</b>					
Male gender	84.7	92.1	84.3	68.8	$\chi^2 = 4.75, p = 0.09$
Age at index homicide	36.77 (10.89)	35.47 (10.22)a	34.73 (9.95)a	48.75 (9.08)b	$H = 21.78, p < 0.01^*$
Education (years)	7.04 (3.84)	6.00 (3.31)	7.41 (3.94)	7.87 (4.29)	$H = 3.74, p = 0.15$
Alcohol misuse lifetime	21	21.1	24.3	6.3	$\chi^2 = 2.56, p = 0.28$
Drug misuse lifetime	17.7	26.3	17.1	0	$\chi^2 = 5.38, p = 0.07$
Suicide attempt lifetime	12.9	5.3	17.1	12.5	$\chi^2 = 3.09, p = 0.21$
Comorbid personality disorder	29.8	47.4a	27.1ab	0b	$\chi^2 = 12.62, p < 0.01^*$
Age at illness onset	29.38 (10.59)	31.63 (10.66)	27.81 (10.56)	30.87 (9.99)	$H = 5.78, p = 0.06$
Illness duration (years)	7.59 (7.61)	4.57 (6.93)a	6.87 (5.60)a	17.87 (8.59)b	$H = 38.79, p < 0.01^*$
Age at first offense	33.83 (11.62)	28.47 (10.29)a	33.33 (9.91)a	48.75 (9.08)b	$H = 32.12, p < 0.01^*$
Prior offending	28.2	50a	22.9b	0b	$\chi^2 = 16.18, p < 0.01^*$
Recidivated homicide	6.5	13.2	4.3	0	$\chi^2 = 4.96, p = 0.08$
<b>Homicide-related</b>					
Co-offender	4	10.5a	0b	6.3ab	$\chi^2 = 8.85, p = 0.01^*$
Victim					$\chi^2 = 4.02, p = 0.40$
Intimate partner/ spouse	21.8	18.4	20	37.5	
Other family	49.2	44.7	52.9	43.8	
Non-family	29	36.8	27.1	18.8	
Method					$\chi^2 = 1.32, p = 0.86$
Sharp instruments	51.6	44.7	54.3	56.3	
Firearms	23.4	28.9	21.4	18.8	
Other	25	26.3	24.3	25	
Premeditation	33.1	42.1	28.6	31.3	$\chi^2 = 2.07, p = 0.36$
Under intoxication	7.3	7.9	7.1	6.3	$\chi^2 = 0.05, p = 0.98$
Delusions at the time of the index homicide	83.9	78.9	85.7	87.5	$\chi^2 = 1.01, p = 0.60$
Hallucinations at the time of the index homicide	33.1	34.2	35.7	18.8	$\chi^2 = 1.73, p = 0.42$
No criminal responsibility	90.3	81.6	94.3	93.8	$\chi^2 = 5.02, p = 0.29$

Note: Values in the same row without shared letters indicate statistical differences according to post hoc comparisons ES: early starters, LS: late starters, LFO: late first offenders  
\*  $p < 0.05$

**Table 2.** Results of univariate and multivariate logistic regression analyses to examine factors associated with being in the early starter versus late starter subgroups

	Univariate			Multivariate (a)		
	B	Sig.	Exp(B)[%95 CI]	B	Sig.	Exp(B)[%95 CI]
Education (years)	-0.11	0.04*	0.89 [0.80 – 0.99]	-0.12	0.11	0.89 [0.76 – 1.03]
Drug misuse lifetime	0.71	0.10	2.20 [0.86 – 5.67]		--	
Suicide attempt lifetime	-1.25	0.11	0.29 [0.06 – 1.33]		--	
Comorbid personality disorder	1.15	< 0.01*	3.17 [1.40 – 7.17]	0.57	0.28	1.78 [0.63 – 5.01]
Age at illness onset	0.03	0.12	1.03 [0.99 – 1.06]		--	
Illness duration (years)	-0.11	< 0.01*	0.90 [0.83 – 0.97]	-0.22	< 0.01*	0.80 [0.71 – 0.91]
Age at first offense	-0.07	< 0.01*	0.93 [0.89 – 0.97]	-0.04	0.12	0.96 [0.91 – 1.01]
Prior offending	1.48	< 0.01*	4.37 [1.90 – 10.09]	2.09	< 0.01*	8.14 [2.03 – 32.61]
Recidivated homicide	1.43	0.06	4.19 [0.95 – 18.55]		--	
Co-offender at index homicide	2.30	0.04*	10.00 [1.08 – 92.73]	2.86	0.08	17.47 [0.72 – 423.75]
No criminal responsibility	1.13	0.11	3.11 [0.78 – 12.29]		--	

(a) Multivariate logistic regression analysis using the enter method. The selection of variables for inclusion in the model was based on univariate analysis, which revealed statistical significance.  $\chi^2 = 47.44, p < 0.001$ , Nagelkerke  $R^2$  of 0.449. Note: Late first offenders were included in the late starter subgroup \*  $p < 0.05$

## SERUM GALECTIN-3 AND S100-B LEVELS IN BIPOLAR DISORDER: CORRELATION WITH EMOTION REGULATION, FUNCTIONING AND COGNITIVE FUNCTIONS

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**BACKGROUND AND AIM:** Bipolar disorder (BD) is a mental illness that can reduce the quality of life and has been associated with cognitive impairment even in euthymic periods. The lifetime prevalence of BD has been reported as 0.3 - 1.2%. It is known that there are no available biomarkers in the identification and management of BD. The immune inflammatory system has been suggested to be involved in the pathophysiology of BD in recent years and an increasing number of studies have been conducted in this area. The aim of this study is to evaluate whether serum levels of Gal-3 and S100-B, which are inflammatory molecules, can be used as biomarkers in the diagnosis of BD and the relationship between serum levels of these molecules and emotion regulation, functionality and cognitive functions.

**METHODS:** The present study, 50 euthymic patients with BD (who applied to the psychiatry outpatient clinic between October 2021 and January 2022 and were diagnosed with BD according to the structured clinical interview (SCID-5), according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V)) and 50 healthy volunteers who were matched with the patient group in terms of age-sex-education level and who did not have current or previous psychiatric diagnosis according to SCID-5 were recruited. The patients were evaluated by using Hamilton Depression Rating Scale (HAM-D), Young Mania Rating Scale (YMRS), Functioning Assessment Short Test (FAST), Bipolar Disorder Functioning Questionnaire (BDFQ), Sheehan Disability Scale (SDS), Emotion Regulation Questionnaire (ERQ), Difficulties in Emotion Regulation Scale (DERS), Trail Making Test (TMT-A, TMT-B); Functioning Assessment Short Test (FAST), Emotion Regulation Questionnaire (ERQ), Difficulties in Emotion Regulation Scale (DERS), Trail Making Test (TMT-A, TMT-B) were administered to healthy volunteers by the clinical investigator. Serum Gal-3 and S100-B levels of patients and healthy controls were measured with the ELISA kit (This study was approved by the ethics committee decision of Kırıkkale University Clinical Research Ethics Committee, dated 05.10.2021 and numbered 16/02).

**RESULTS:** In this study, in addition to the fact that Gal-3 and S100-B levels were found to be higher in BD patients compared to healthy controls, the hypothesis that inflammatory processes may play a role in the deterioration of cognitive functions in BD was supported by demonstrating the association of increased serum Gal-3 level with TMT-B sec, Error TMT-B, TMT A+B, TMT B-A; and S100-B level with Error TMT-A. The possible role of inflammatory processes in the deterioration of psychosocial functioning detected by the scales in the

patient group was demonstrated by the positive correlation of serum Gal-3 level with the FAST-Leisure Activities subscale score and S100-B level with the BDFQ-Mental Functioning subscale score.

**CONCLUSIONS:** To the best of our knowledge, this is the first study to examine the level of Gal-3 in BD patients and to explore the association of Gal-3 and S100-B with emotion regulation, functionality and cognitive functions in BD patients compared to healthy controls. These results contribute to growing literature indicating the inflammatory process in the etiopathogenesis of BD. Larger sample studies with longitudinal follow-up are needed to clarify the correlation between the impairment of emotion regulation, functionality, and cognitive functions in BD and dysregulated inflammatory responses in terms of Gal-3 and S100-B levels. Moreover, through recent studies showing that Gal-3 and S-100 proteins can be used as potential therapeutic targets for the treatment of various diseases, it can be suggested that these biomarkers may be one of the potential new drug targets that can prevent the progression of cognitive impairment in bipolar disorder.

**Keywords:** bipolar disorder, cognitive functions, emotion regulation, functioning, serum Galectin-3, serum S100-B

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**Table.** Comparison of serum Gal-3, S100-B and other biochemical parameters in BD and healthy control (HC) groups.

	BD	BD	HC	HC	p
	Mean±SD	Med. (min-max)	Mean±SD	Med. (min-max)	p
Gal-3 (b)	1,47±1,09	1,3 (0,4-7,21)	0,90±0,53	0,76 (0,24-2,42)	0,000*
S100-B (b)	1,55±1,43	0,91 (0,22-6,23)	0,85±0,51	0,69 (0,25-3,06)	0,007*
WBC (a)	8,30±2,34	8,16 (4,14-15,95)	7,69±1,86	7,58 (4,54-14,28)	0,156
NE # (b)	5,05±2,07	4,53 (2,05-12,66)	4,61±1,32	4,42 (2,23-9,66)	0,359
LY # (b)	2,52±0,89	2,43 (0,68-5,53)	2,38±0,61	2,31 (1,24-3,75)	0,359
NLO (b)	2,30±1,45	1,91 (0,83-9,09)	2,00±0,58	1,83 (1,2-3,31)	0,888
CRP (b)	3,47±3,55	2,2 (0,2-16,6)	2,11±1,98	1,44 (0,1-9)	0,057
Ferritin (b)	82,15±69,78	56,35 (7,2-281)	93,72±119,11	62,4 (4,5-686)	0,662
PCT (b)	0,05±0,03	0,05 (0,01-0,15)	0,04±0,02	0,03 (0,02-0,15)	0,008*

\*p<0,05 a: t Test, b: Mann Whitney test



## THE RELATIONSHIP BETWEEN SERUM LIPOCALIN-2 LEVELS AND COGNITIVE FUNCTIONS IN PATIENTS WITH OBSESSIVE COMPULSIVE DISORDER AND COMPARED WITH HEALTHY

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**BACKGROUND AND AIM:** Obsessive-compulsive disorder (OCD) is a chronic disease that is accompanied by obsessions or compulsions, causes impairment in functionality, has a high public cost, is less sought for treatment, and resistance to treatment is high. Impairment in functioning due to OCD results from both the symptoms and the cognitive impairment caused by OCD. When the literature is searched, many studies have been conducted in recent years to explain the etiopathogenesis of OCD. However, study results are not consistent. In particular, hypotheses that try to explain the pathogenesis of OCD with impairment in the immune system have been tested in many studies. Animal studies have shown that lipocalin-2 (LCN-2), identified as an acute phase reactant, may be an important regulator of emotional and cognitive behaviors. In our study, we aimed to examine the relationship of lipocalin-2 (LCN-2), an inflammatory molecule, with cognitive functions in OCD patients and compare it with healthy controls.

**METHODS:** Our prospective research was started after receiving the approval of the 'Kırıkkale University Non-Interventional Clinical Research Ethics Committee' (Decision No: 16/03, Date: 05.10.2021). OCD patients (n=50) who applied to the psychiatry outpatient clinic were included in the study. Healthy volunteers (n=50) whose age, gender and educational status were similar to the patients were determined as the control group. Participants with neurological diseases, chronic diseases that could affect inflammatory markers (morbid obesity and diabetes etc.), metabolic diseases, autoimmune diseases (rheumatoid arthritis, celiac, Crohn's etc.) and those who had an infectious disease within the last month were excluded. All participants were interviewed by the research psychiatrist. Severity and clinical characteristics of OCD patients were evaluated using the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS). Stroop TBAG Test, Auditory Verbal Learning Test and Cognitive Emotion Regulation Scale were applied to evaluate cognitive functions. White blood cell count (WBC), neutrophil percentage (%Neu), neutrophil/lymphocyte ratio (NLR) and serum LCN-2 levels were measured in patients and healthy controls. Correlation analysis was performed with neuropsychological test results, serum LCN-2 and neutrophil-related hemogram parameter levels.

**RESULTS:** We found that serum LCN-2 levels, %Neu and NLR values were higher in OCD patients than in the healthy control group.

We showed that Stroop test performance in OCD patients was lower than in healthy controls. We also revealed that test performance decreases further in OCD patients as disease duration increases.

Patients scored lower on the AVLT test in the domains of learning/free recall type memory and prospective impairment. We also showed that this reduction was positively associated with disease severity.

We found that cognitive emotion regulation skills in patients were more maladaptive than in healthy controls.

However, we did not find any evidence of a relationship between serum LCN-2 level and cognitive dysfunction in patients.

**CONCLUSIONS:** We aimed to contribute to the literature by increasing interest and awareness in OCD. Identifying endophenotypic features and associating these features with etiological factors were other goals. This study makes our study unique as it is the first to examine the relationship between LCN-2 and neuropsychological functions in OCD patients.

The impairment in emotion regulation skills we detected in patients may shape treatment interventions. Patients may benefit from emotional regulation interventions added to their existing treatments.

In order for LCN-2 to be used as a biomarker in OCD, it needs to be evaluated in larger samples. In future studies, it may be useful to consider other cognitive functions and different age groups in larger samples.

**Keywords:** auditory verbal learning test, cognitive emotion regulation scale, cognitive functions, obsessive compulsive disorder, lipocalin-2, stroop TBAG test

**Table.** Comparison of LCN-2 and neutrophil-related hemogram parameters between groups

	<b>OCD Patients</b>	<b>OCD Patients</b>	<b>Healthy Controls</b>	<b>Healthy Controls</b>	
	Ortalama Standart Sapma	Ortanca (Min-Max)	Ortalama± Standart Sapma	Ortanca (Min-Max)	p*
WBC	7.21 ± 1.90	6.75 (4.14-13.44)	7.34 ± 1.94	7.12 (4.54-14.28)	0.699
%NEU	59.9 ± 8.1	60.3 (39.1-83.5)	56.7 ± 7.3	56.2 (35.5-70.4)	0.038
NLO	2.17 ± 1.13	2.00 (0.82-8.43)	1.77 ± 0.61	1.74 (0.68-3.31)	0.018
LCN-2	196.57 ± 60.35	189.87 (89.68-329.84)	117.87 ± 59.17	108.07 (38.08-324.37)	<0.001

WBC: Blood White Cell Count %Neu: Neutrophil Leukocyte Percentage NLR: Neutrophil/Lymphocyte Ratio LCN-2: Lipocalin-2 \*: Mann-Whitney U Test

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## ASSESSMENT OF CHANGES IN CARBONYL STRESS MARKERS WITH TREATMENT IN PATIENTS WITH BIPOLAR DISORDER MANIC EPISODE

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**BACKGROUND AND AIM:** Oxidative stress has been consistently observed in individuals with BD, with elevated levels of reactive oxygen species linked to the onset and progression of the illness (Berk et al., 2011). Carbonyl stress, closely associated with oxidative stress, reflects an abnormal metabolic condition resulting from increased production of reactive carbonyl compounds (RCCs) like glyoxal (GO), methylglyoxal (MGO), and malondialdehyde (MDA) (Vistoli et al., 2013). RCCs are naturally formed during lipid peroxidation and glycoxidation of carbohydrates, serving as precursors for advanced glycation end products (AGEs) and advanced lipid peroxidation end products (ALEs). These compounds create cross-links on tissue proteins, inducing carbonyl stress, and accumulate during aging and in chronic diseases (Moldogazieva et al., 2019). Interaction of AGEs with cell surface receptors, such as the receptor for AGE (RAGE), triggers the AGE-RAGE axis, activating NF- $\kappa$ B and releasing pro-inflammatory cytokines (Twarda-clapa et al., 2022). Despite this, carbonyl stress has not been thoroughly investigated in mood disorders to date

**OBJECTIVES:** (i) to analyze carbonyl stress parameters (RCCs i.e. GO, MGO, and MDA) in drug-free patients diagnosed with a manic episode of BD and compare them with healthy controls, (ii) to investigate the correlation between RCC levels and clinical features in patients, and (iii) to evaluate the impact of treatment on RCCs in BD patients by conducting pre- and post-treatment assessments. Our hypothesis posited that RCC levels would be positively linked to BD diagnosis, regardless of cardiometabolic parameters, thus supporting a connection between carbonyl stress and mood disorders. Additionally, we expected a significant reduction in RCCs with treatment, assessed by measuring these markers in both manic and euthymic phases.

**METHODS:** Patients were consecutively recruited between February 1, 2022 and March 1, 2023 from the inpatient psychiatric department. Written informed consent was obtained from all study participants (IRB: 14.03.2022 – 2022.03.75). Patients were included in the study if they met the following criteria: aged between 18 and 60 years, hospitalized with a primary diagnosis of a manic episode of BD, and had been without medication for at least four weeks prior to admission.

Healthy volunteers without psychiatric disorders or chronic medical illnesses, and without a first-degree relative with a psychiatric diagnosis,

were enlisted as controls. Exclusion criteria for both groups included intellectual disability, neurological diseases, chronic medical conditions such as diabetes mellitus, metabolic syndrome, chronic hepatic or renal failure, as these conditions are associated with increased formation of AGEs. Acute or chronic immuno-inflammatory diseases, and clinical signs of inflammation (CRP  $\geq$  5 $\mu$ g/ml) and/or leukocytosis ( $>$ 10,000 G/I) were also set as exclusion criteria. 48 patients and 41 healthy controls matched with the study group for age were included.

Samples from patients were collected both before and after treatment when they reached a euthymic state. Euthymic state was defined as having a Young Mania Rating Scale (YMRS) score below 8, consistent with the International Society for Bipolar Disorders Task Force criteria for symptomatic remission. Serum carbonyl stress parameters were measured using high-performance liquid chromatography.

Following pre- and post-treatment evaluations of GO, MGO, MDA levels and YMRS scores, the GO, MGO, and MDA levels were also compared separately between pre-treatment patients vs. healthy controls and post-treatment patients vs. healthy controls with the Mann-Whitney U test. Since BMI and waist circumference differed between the patients and healthy controls and were considered as potential confounders, one-way analysis of covariance (ANCOVA) was performed for comparisons between groups after adjusting for BMI and waist circumference.

**RESULTS:** Descriptive and clinical characteristics of the study sample are presented in Table 1. BMI and waist circumference values were significantly higher in the patient group.

The levels of GO and MGO did not show any pre- and post-treatment difference. However, a paired samples t-test showed a significant decrease in MDA levels from pre-treatment to post-treatment ( $p < 0.01$ ) (Table 2). Binary analyses indicated that pre-treatment MGO and MDA levels were significantly higher in the patients than the control group, while GO levels did not differ between pre-treatment patients and healthy controls. A comparison of the markers between post-treatment patients and controls indicated that MGO and MDA levels remained significantly higher in the patients compared to the healthy controls ( $p = 0.02$  and  $p < 0.01$ , respectively). The plasma GO levels did not differ between post-treatment patients and healthy controls.

Results from the binary analyses were further examined using ANCOVA to compare the levels of carbonyl stress markers between patients (both pre- and post-treatment levels) and healthy controls. For this analysis, the data were adjusted for BMI and waist circumference as potential confounders, since these variables differed between the patient and control groups. ANCOVA analysis revealed that only MDA levels remained significantly higher in patients at both pre- and post-treatment stages compared to healthy controls (Table 2).

**CONCLUSIONS:** At both the manic pre-treatment and euthymic post-treatment stages, patients exhibited higher levels of MGO and MDA compared to healthy controls. However, after adjusting for BMI and waist circumference, this difference remained significant only for MDA at both stages. Additionally, MDA levels significantly decreased with treatment, while no significant changes were observed in GO and MGO levels. These findings suggest that although MGO may play a role in BD's pathophysiology, its levels could be influenced by metabolic factors. On the other hand, MDA emerged as the RCC with the strongest association with BD's etiopathogenesis and clinical stage. This suggests that the neurotoxic effects of MDA may contribute to BD's pathophysiology, indicating its potential consideration as a trait or marker of the disorder. Novel therapeutic approaches targeting the reduction of RCC synthesis, as well as AGE and ALE, may offer new avenues for BD treatment development by alleviating carbonyl stress.

**Keywords:** carbonyl stress, inflammation, bipolar disorder

**Table 1.** Demographic and clinical variables of study participants

	Patients (n = 48) (Mean ± SD)	Controls (n = 41) (Mean ± SD)	p
Age	33 ± 11.9	28.7 ± 4.4	0.45
Education (years)	10.3 ± 4.4	17.1 ± 1.6	<0.01
Age at illness onset	26.6 ± 9.8	-	
Illness duration (years)	6.4 ± 6.8	-	
Number of inpatient admissions (min-max)	3.4 ± 3.4 (1-19)	-	
Metabolic parameters			
BMI (kg/m <sup>2</sup> )	26.6 ± 4.3	24.1 ± 6.8	0.04
Waist circumference (cm)	92 ± 14.1	85.5 ± 13.2	0.03
Fasting glucose (mg/dL)	86.4 ± 11.8	83.6 ± 10.6	0.22
HDL (mg/dL)	42.1 ± 19.5	43.3 ± 12.2	0.92
Triglycerides (mg/dL)	147.5 ± 88.3	118.9 ± 54.5	0.21
Blood urea nitrogen (mg/dL)	24.7 ± 6.6	24.5 ± 6.6	0.91
Creatinine (mg/dL)	0.8 ± 0.1	0.8 ± 0.1	0.71
eGFR	114.5 ± 16.6	116.6 ± 11.5	0.35
Smoking (pack-year)	9.9 ± 19.1	3.3 ± 3.96	0.20

Z = Mann Whitney U test, t = independent samples t test Abbreviations: SD=standart deviation, eGFR= estimated glomerular filtration rate

**Table 2.** Changes in AGE, ALE levels and YMRS in the patients and comparison of markers with controls

	At admission (T0-manic) Mean ± SD	At discharge (T1-euthymic) Mean ± SD	Controls (n=41) Mean ± SD	p1	p2†	p3†
Glyoxal (mcg/ml)	0.054 ± 0.033	0.060 ± 0.040	0.097 ± 0.134	0.25a	0.18	0.77
	0.053 ± 0.007n	0.062 ± 0.007n				
Methylglyoxal (mcg/ml)	0.057 ± 0.052	0.059 ± 0.074	0.088 ± 0.161	0.56b	0.30	0.35
	0.055 ± 0.010n	0.057 ± 0.110n				
Malondialdehyde (mcg/ml)	0.561 ± 0.764	0.271 ± 0.430	0.101 ± 0.126	<0.01b	<0.01	<0.01
	0.562 ± 0.087n	0.283 ± 0.049n				
YMRS	30.3 ± 6.57	3.58 ± 1.33		<0.01b		

p1: T0 vs T1, p2: T0 vs control, p3: T1 vs control, a Wilcoxon signed-rank test b Paired samples t test † ANCOVA test results adjusted for body mass index and waist circumference n = Level of markers adjusted for body mass index and waist circumference with ANCOVA (mean±standart error) p<0.05 statistically significant. Abbreviations: SD = standart deviation. AGE = Advanced glycation end products, ALE = Advanced lipoxidation end products, YMRS = Young Mania Rating Scale

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## ATTITUDES TOWARDS SEXUAL ORIENTATION IN MEDICAL STUDENTS AND RELATED PSYCHOSOCIAL RISK FACTORS

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**BACKGROUND AND AIM:** Homosexuals are frequently subjected to harassment, physical and verbal assault, and violence in various areas of society, including healthcare services (Kılıçaslan, 2017). It is crucial to understand the attitudes of medical students, who are future physicians, towards homosexuals and the factors that contribute to these attitudes, as it will help in developing intervention programs in medical education and providing better quality healthcare services to homosexuals. Although there are studies on attitudes towards sexual orientation, there is no research that examines the impact of psychosocial factors, gender perception, and sexual myths on homophobia in medical students. This study aims to determine the psychosocial factors that may influence attitudes towards sexual orientation in medical students and explore the relationship between attitudes towards gender roles, sexual myths, and homophobia.

**METHODS:** This study was approved by Çanakkale Onsekiz Mart University Clinical Research Ethics Committee with the decision numbered 2023/02-18. This research was carried out on students enrolled in the Faculty of Medicine at Çanakkale Onsekiz Mart University during the 2022-2023 academic year. The participants were proficient in the Turkish language, voluntarily agreed to take part in the study, and were selected on their eligibility. Four different data collection tools were utilized for the study. A sociodemographic data form was employed to gather information about the participants' demographic characteristics and their perspectives on social life. The Hudson Ricketts Homophobia Scale (HRHS) was administered to determine the participants' views and attitudes towards homosexuals. The Sexual Myths Scale (SMS) was utilized to evaluate the participants' beliefs about sexuality, and the Gender Roles Attitude Scale (GRAS) was employed to assess their perceptions and attitudes towards gender roles. The HRHS, SMS, and GRAS scores were analyzed and compared based on the participants' responses to the sociodemographic data form. Correlation analyses were conducted to examine the relationship between homophobia, sexual myths, and attitudes towards gender roles. Hierarchical multiple regression analyses were performed to identify the

factors that affect the predictive power of homophobia. Additionally, a mediator analysis was conducted to determine whether attitudes towards gender roles serve as a mediating variable in the relationship between sexual myths and homophobia.

**RESULTS:** A total of 457 medical students were included in the study, comprising 211 males and 248 females. Homophobia scores were found to be higher in males than females and higher in those who defined themselves as conservative, traditional, religious and those who followed religious rules in their social and sexual lives ( $p < 0.001$ ). Additionally, homophobia scores for fifth and sixth-grade students were lower than those for first-grade students ( $p = 0.018$  and  $p = 0.005$ , respectively). Participants who received psychiatric treatment and identified as secular also had lower homophobia rates ( $p < 0.001$  and  $p = 0.019$ , respectively). A positive correlation was found between sexual myths and homophobia, and a negative correlation was found between gender role attitudes and homophobia ( $p < 0.001$ ). The hierarchical regression analysis revealed that right-wing political orientation, conservatism, high levels of belief in sexual myths, and unequal gender role attitudes were predictors of homophobia ( $p = 0.016$ ,  $p < 0.001$ ,  $p < 0.001$ , and  $p < 0.001$ , respectively). The mediation analysis showed that gender role attitudes partially mediated the relationship between sexual myths and homophobia (sexual myth  $\rightarrow$  attitudes towards gender roles  $\rightarrow$  homophobia).

**CONCLUSIONS:** Attitudes toward sexual orientation are influenced by a range of social, cultural, and political elements. The decline in homophobia levels, particularly among higher-grade students, underscores the importance of the content and quality of medical education. Traditional gender beliefs, conservative thinking, and right-wing political views may contribute to increased homophobia, perpetuating harmful sexual myths. This suggests these concepts are rooted in a shared thought system and mindset. Our study's findings highlight the significance of psychosocial and cultural factors in shaping attitudes toward sexual orientation and emphasize the necessity of comprehensive and accurate sexuality education in the medical curriculum. Our results are crucial in combating homophobia among medical students.

**Keywords:** gay, gender role, homophobia, medical student, sexual myth

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**Table.** Predictors of Homophobia, Hierarchical Multiple Regression

Model		B	SD	Beta	t	p	C.I. %95 Lower bound	C.I. %95 Upper bound
1	Constant	78.04	2.36		32.99	0.00	73.40	82.69
	2nd year of MS	-10.29	4.05	-0.13	-2.53	0.012	-18.27	-2.31
	3rd year of MS	-3.85	4.95	-0.03	-0.77	0.43	-13.58	5.87
	4th year of MS	-4.99	5.26	-0.04	-0.94	0.34	-15.33	5.34
	5th year of MS	-9.18	3.88	-0.12	-2.36	0.018	-16.80	-1.55
	6th year of MS	-11.08	3.94	-0.14	-2.81	0.005	-18.83	-3.34
2	Constant	80.86	9.09		8.88	0.00	62.98	98.74
	2nd year of MS	-4.69	3.20	-0.06	-1.46	0.14	-10.98	1.59
	3rd year of MS	-0.14	3.88	-0.00	-0.03	0.97	-7.78	7.49

**Table.** Predictors of Homophobia, Hierarchical Multiple Regression (*devam*)

Model		B	SD	Beta	t	p	C.I. %95 Lower bound	C.I. %95 Upper bound
	4th year of MS	-2.38	4.13	-0.02	-0.57	0.56	-10.50	5.74
	5th year of MS	-0.13	3.09	-0.00	-0.04	0.96	-6.22	5.95
	6th year of MS	0.00	3.16	0.00	0.00	1.00	-6.21	6.21
	GRAS	-0.68	0.11	-0.27	-6.05	<0.001	-0.91	-0.46
	SMS	0.56	0.06	0.42	9.29	<0.001	0.44	0.68
3	Constant	115.47	12.64		9.13	0.00	90.62	140.32
	2nd year of MS	-3.75	2.89	-0.04	-1.3	0.19	-9.43	1.92
	3rd year of MS	2.76	3.52	0.02	0.78	0.43	-4.16	9.69
	4th year of MS	0.25	3.83	0.00	0.06	0.94	-7.28	7.79
	5th year of MS	1.58	2.80	0.02	0.56	0.57	-3.92	7.09
	6th year of MS	1.00	2.85	0.01	0.35	0.72	-4.61	6.62
	GRAS	-0.54	0.10	-0.21	-5.29	<0.001	-0.75	-0.34
	SMS	0.42	0.05	0.32	7.42	<0.001	0.31	0.53
	Religious upbringing	1.07	2.04	0.01	0.52	0.60	-2.94	5.08
	Adopting religious rules in community life	4.83	2.83	0.06	1.70	0.088	-0.73	10.41
	History of psychiatric treatment	-11.76	2.79	-0.14	-4.20	<0.001	-17.26	-6.26
	Center political view	4.86	2.15	0.08	2.25	0.025	0.62	9.09
	Right political view	9.69	4.02	0.09	2.41	0.016	1.78	17.61
	Conservative	11.99	2.94	0.17	4.07	<0.001	6.21	17.77
	Secular	-6.35	2.70	-0.090	-2.35	0.019	-11.66	-1.03

Constant: 1st year of medical school, MS: medical school, CI: confidence interval, SD: standard deviation, p: significance level, HRHS: Hudson Ricketts Homophobia Scale, SMS: Sexual Myths Scale, GRAS: Gender Role Attitudes Scale

## EXECUTIVE FUNCTIONS AND THEORY OF MIND IN PARENTS OF CHILDREN WITH AUTISM AND AGE, GENDER AND IQ-MATCHED HEALTHY CONTROLS: AN FMRI STUDY USING AN AFFECTIVE STROOP TASK

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**BACKGROUND AND AIM:** The term Broad Autism Phenotype (BAP) is utilized to describe a group believed to exhibit mild symptoms of autism, including subthreshold social skills-communication symptoms and unusual personality traits. While not considered a diagnosis or disease, BAP is frequently employed to identify subclinical features in relatives of individuals with autism spectrum disorder (ASD). Individuals within the BAP are postulated to have impaired executive functions, language and communication disorders, and reduced social cognition. Studies have suggested that the prevalence of autism-like behavior in at least one family member of individuals diagnosed with ASD ranges from 14% to 50%, with more severe BAP characteristics becoming apparent as the number of individuals with autism increases. Moreover, research has shown that BAP features are more prevalent in first-degree relatives of individuals with ASD compared to the general population, supporting the hypothesis of a significant genetic component in ASD. The objective of this study was to compare parents of children with autism to a healthy control group in terms of social cognition (specifically empathy and theory of mind), executive functions, and brain activations under an affective Stroop test using functional magnetic resonance imaging (fMRI). Additionally, the study aimed to assess the strength of these activations independently of the BAP and healthy control groups. This approach allows for an investigation into whether cognitive function profiles observed in individuals with autism also manifest in their first-degree relatives, providing valuable insights into the hereditary origins of autism.

**METHODS:** Our study included parents of children diagnosed with autism according to the Diagnostic and Statistical Manual of Mental Disorders 5 (DSM-5; Broad Autism Phenotype Group; BAPs). Following a clinical examination based on the Structured Clinical Interview for DSM-5–Clinician Version (SCID-5-CV), participants completed self-report measurements such as the Sociodemographic Form, Hospital Anxiety Depression Scale (HAD), Autism Spectrum Quotient (ASQ), and Empathy Quotient (EQ). Additionally, neurocognitive and intelligence tests including the Wechsler Adult Intelligence Scale (WAIS-R), Cancellation Test (CT), Wisconsin Card Sorting Test (WCST), Judgement of Line Orientation (JLO), Visual Aural Digit Span Test (VADS-B), Stroop Test, and Reading the Mind in the Eyes Test (RMET) were administered to both the Broad Autism Phenotype BAPs and the matched Healthy Controls (HCs) group. Matching criteria for healthy controls included age, gender, years of education, and IQ score. The data from the fMRI scan using an affective Stroop test were analyzed, taking into account two groups (BAPs and HCs), three emotions (positive, negative, neutral), and two tasks (congruent, incongruent). The study protocol was approved by the Local Ethical Committee of Selçuk University on 05.05.2021 with decision number 2021/251.

**RESULTS:** The study sample comprised a total of 49 individuals, with 24 classified as BAPs and 25 as HCs. The mean age of the BAP group was 39,83 ± 6,82 years, while the mean age of the HC group was 39,16 ± 8,45 years. Gender distribution was balanced within each group, with 50% female and 50% male participants in the BAP group, and 48% female and 52% male participants in the HC group. There were no significant differences between the two groups in terms of HAD anxiety and depression scores. Analysis of various neurocognitive measures including WAIS-R, WCST, VADS-B, CT, JLO, Stroop Test, and RMET scores did not reveal statistically significant differences between the BAP and HC groups. However, a significant difference was observed in the Stroop Test, fifth card, where the BAP group showed higher numbers of errors ( $p=0.03$ ) and corrections ( $p=0.02$ ). Regarding empathy quotient, while no significant differences were found in cognitive empathy and social skills subscores, a significant difference was observed in emotional empathy ( $p=0.03$ ). Additionally, significant differences were found in the ASQ subscales for attention to detail ( $p=0.04$ ) and imagination ( $p=0.04$ ). The analysis of affective Stroop test results revealed no significant differences between the two groups in terms of the number of correct answers and mean answer times ( $p=0.53$ ;  $p=0.94$ , respectively) during the test. Finally, the analysis of fMRI activation showed a task-emotion-group interaction, indicating less activation in brain regions such as the superior frontal gyrus, middle frontal gyrus, medial frontal gyrus, and dorsal anterior cingulate cortex in the BAPs compared to the individuals with HCs ( $F=14.67$ ,  $p<0.01$ ,  $x=-18$ ,  $y=8$ ,  $z=53$ ).

**CONCLUSIONS:** Our study found no significant differences between the two groups regarding age, gender, educational status, intelligence level, and psychiatric clinical status. However, when analyzing the results of the Stroop Test, we observed a statistically significant increase in the number of errors and corrections on the 5th card in the BAP group. This finding suggests difficulties in focused attention, selective attention, and inhibitory attention, as measured by the color-word interference effect. Furthermore, the significant difference in the emotional empathy subscale indicates weaker emotional reactions and less tendency to recognize and alleviate others' problems in individuals with BAP. The observed significant difference in the attention to detail subscale of the ASQ supports the theory of weak central coherence in BAP individuals. Consistent with existing literature, our study also revealed a significant difference in imagination scores between BAPs and HCs, potentially indicating impairment of imagination in individuals with BAP, which aligns with characteristics of ASD. Additionally, the activation of brain regions observed in the task-emotion-group interaction analysis corresponds to difficulties similar to autism reported in the literature. Notably, our study uniquely applied fMRI to parents of individuals with ASD for the first time, revealing brain activation differences consistent with those seen in individuals with autism. This finding suggests that investigating the neurobiology of autism and neurocognitive difficulties in individuals with BAP may provide valuable insights into the underlying mechanisms of ASD.

**Keywords:** affective stroop test, autism spectrum disorder, broad autism phenotype, executive functions, fMRI, theory of mind

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**Table.** Sociodemographic and Intelligence Characteristics of the Sample

N (%)	Broad Autism Phenotype Group (n=24)	Healthy Controls (n=25)	p
Age (mean ± SD)	39,83 ± 6,82	39,16 ± 8,45	0,69
Female	12 (50)	12 (48)	0,84
Male	12 (50)	13 (52)	
Year of Education (mean ± SD)	14,33 ± 2,68	14,84 ± 3,99	0,60
Smoking	5 (20,8)	13 (52)	0,03*
Alcohol Use	3 (12,5)	5 (20)	0,37
WAIS-R			
Verbal Score	103,75 ± 15,39	108,68 ± 13,88	0,34
Performance Score	98,5 ± 23,97	102,36 ± 14,25	0,84
HAD			
Anxiety Score	8,33 ± 6,06	6,92 ± 5,13	0,38
Depression Score	5,17 ± 3,66	5,24 ± 3,69	0,94
Empathy Scale			
Cognitive Empathy	13,46 ± 4,72	14,24 ± 5,71	0,59
Emotional Empathy	12,67 ± 3,51	14,72 ± 3,57	0,03*
Social Skills	7,17 ± 2,71	7,04 ± 2,59	0,88
Total Score	47,75 ± 9,65	49,64 ± 12,65	0,43
Autism Spectrum Quotient			
Social Skills	2,88 ± 1,8	2,24 ± 1,59	0,16
Attention Shifting Skills	4,46 ± 2,04	4,68 ± 1,97	0,7
Attention to Detail	5,58 ± 1,98	4,32 ± 2,9	0,04*
Communication Skills	2,79 ± 1,91	2,56 ± 1,88	0,64
Imagination	3,33 ± 1,83	2,36 ± 1,52	0,04*
Total Score	19,04 ± 6,0	16,16 ± 6,51	0,11
RMET			
Correct Answer Amount	23,54 ± 3,19	23,36 ± 3,46	0,90

Note: Data are presented as mean ± standard deviation or percentage N (%). Statistically significant findings are indicated in \* $p < 0.05$ . WAIS-R: Wechsler Adult Intelligence Scale-Revised, HAD: Hospital Anxiety and Depression Scale, RMET: Reading the Mind in the Eyes Test

**Table.** Comparison of Neurocognitive Tests among Groups

	Broad Autism Phenotype Group (n=24)	Healthy Controls (n=25)	p
WCST			
Total Number of Reactions	77,12 ± 7,47	78,00 ± 7,2	0,67
Total Number of Correct	65,0 ± 4,53	66,28 ± 4,3	0,32
Total Number of Incorrect	12,13 ± 4,58	12,04 ± 4,27	0,95
Total Number of Non-Perseverative Errors	6,08 ± 3,67	6,64 ± 3,85	0,61
Total Number of Perseverative Errors	5,38 ± 2,53	5,40 ± 1,76	0,97
Total Number of Perseverative Reactions	5,38 ± 2,53	5,48 ± 2,00	0,87
Number of Completed Categories	6	6	
VADS-B			
Auditory-Verbal	6,17 ± 1,17	6,84 ± 1,18	0,05
Audio-Written	6,46 ± 1,38	6,44 ± 1,36	0,96
Visual-Verbal	5,30 ± 1,37	6,08 ± 1,44	0,06
Visual-Written	6,13 ± 1,19	6,92 ± 1,58	0,05
Judgement of Line Orientation	21,5 ± 3,86	23,32 ± 3,63	0,10
Cancellation Test			
Marked Target	59,21 ± 0,64	59,23 ± 0,66	0,91
Missed Target	0,83 ± 0,62	0,8 ± 0,64	0,75
Incorrectly Marked	0,04 ± 0,14	0,03 ± 0,11	0,85
Total Error	0,88 ± 0,63	0,83 ± 0,63	0,80
Scanning Time	85,75 ± 10,57	87,74 ± 23,82	0,71
Stroop Test			
4th Card	16,48 ± 3,59	16,64 ± 3,49	0,89
Duration	0,17 ± 0,48	0,04 ± 0,2	0,27
Error	0,13 ± 0,45	0,04 ± 0,2	0,52
Correction			
5th Card	25,36 ± 5,91	26,5 ± 7,32	0,60
Duration	1,38 ± 1,74	0,6 ± 1,04	0,03*
Error	0,88 ± 1,08	0,32 ± 0,63	0,02*
Correction			

Note: Data are presented as mean ± standard deviation. Statistically significant findings are indicated in \* $p < 0.05$ . WCST: Wisconsin Card Sorting Test, VADS-B: Visual Aural Digit Span Test Form B

# ORAL PRESENTATIONS



OP-01

## RETROSPECTIVE ANALYSIS OF INDIVIDUALS EVALUATED FOR ALCOHOL AND SUBSTANCE USE DISORDERS UNDER LAW NO. 6284 AT AMATEM FORENSIC CLINIC

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**BACKGROUND AND AIM:** This retrospective study aims to contribute to the literature by evaluating individuals within the scope of Law No. 6284, which aims to protect individuals experiencing or at risk of violence, particularly women, from domestic violence. The study focuses on individuals referred for assessment of alcohol and substance use disorders (ASUD). Data regarding the prevalence of ASUD among individuals under the purview of Law No. 6284 in Turkey are limited, thus underscoring the importance of this study.

**METHODS:** 230 individuals evaluated for ASUD under Law No. 6284 at the AMATEM Clinic of Ankara Training and Research Hospital between January 1, 2023, and December 31, 2023, were included in the study. Patient health records were retrospectively reviewed to collect data on demographics, marital status, and assessment outcomes. Ethical approval was obtained from the hospital's ethics committee (No: E24/11).

**RESULTS:** The mean age of participants was  $36.11 \pm 10.4$  years, with the majority being male (93.0%) and married (53.5%). It was observed that 56.1% of participants had been subjected to restraining orders from their partners. Following follow-up evaluations, 41.7% of patients were diagnosed with ASUD, while 40.0% were not. Reasons for inconclusive assessments in 18.3% of cases included failure to attend follow-up appointments or provide necessary test results. Among individuals subjected to restraining orders, ASUD was found in 24.8% of cases involving partners and 63.5% involving non-partner individuals (e.g., parents, siblings). Alcohol (15.2%), methamphetamine (9.6%), heroin (5.2%), and polydrug use (4.8%) were the most commonly identified substances. Participants with ASUD were found to be younger than those without ASUD ( $p < 0.001$ ).

**CONCLUSIONS:** It was found that 25% of those subjected to restraining orders from their partners and 63% of those subjected to restraining orders from non-partner individuals exhibited ASUD. Prompt diagnosis and treatment of ASUD could be beneficial in managing domestic violence effectively.

**Keywords:** alcohol use disorder, domestic violence, Law No. 6284, substance use disorder

OP-02

## THE ASSOCIATION BETWEEN METHAMPHETAMINE USE AND RETENTION IN OPIOID USE DISORDER: A RETROSPECTIVE STUDY

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**BACKGROUND AND AIM:** The worldwide usage of methamphetamine and opioids has rapidly increased, leading them to be considered twin epidemics. These substances pose dangers to both individual health and public health.

Co-methamphetamine use may also adversely affect the treatment of opioid use disorder. This retrospective study aims to examine how co-methamphetamine use impacts retention in opioid use disorder treatment and contribute to addressing the existing limitations in the literature in this area.

**METHODS:** The study included 194 individuals who presented to the Ankara Training and Research Hospital AMATEM outpatient clinics for opioid use and initiated detoxification treatment (buprenorphine/naloxone combination) between January and February 2023. Their 12-month follow-ups were retrospectively examined. Information regarding co-methamphetamine use, continuation of follow-up for 12 months, and duration of opioid abstinence (retention) was recorded. The study was approved by our hospital's ethics committee (E23/1328).

**RESULTS:** The mean age of participants was  $31.35 \pm 6.4$  years, with the majority being male (91.8%), not married (72.2%), and the mean retention was  $3.95 \pm 4.3$  months. The majority of patients (65.5%) had co-methamphetamine use. 14.4% of patients stayed at retention for 12 months, 5.2% retention but continued substances other than opioids, 46.9% relapsed and 33.5% did not continue to the follow-ups. Patients with co-methamphetamine use (group OM+) ( $n=127$ ) stayed at retention for  $2.97 \pm 3.6$  months, and the patients without co-methamphetamine use (group OM-) ( $n=67$ ) for  $5.82 \pm 4.9$  months ( $p < 0.001$ ). In the OM+ group, 11.0% ( $n=14$ ) stayed at retention for 12 months and 35.8% ( $n=24$ ) in the OM- group.

**CONCLUSIONS:** The concurrent use of methamphetamine is a significant factor that reduces the chances of success in opioid use disorder. Interventions targeting this issue may prove beneficial in coping with substance use disorders.

**Keywords:** buprenorphine, methamphetamine use disorder, opioid use disorder, retention



## DESCRIPTIVE EVALUATION OF MARRIAGE HISTORIES OF PATIENTS WITH SCHIZOPHRENIA

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**BACKGROUND AND AIM:** Schizophrenia, which often begins at an early age and has a chronic course, causes difficulties in important issues such as marriage and child care. Due to schizophrenia, these people's chances of marriage decrease. Even if they are married, they have difficulty and they divorce more often. The available data on schizophrenia marriages in Turkey consists of limited information. However, the formation of marriage is a structure that needs to be evaluated culture-specific because it contains intense cultural elements. The aim of this study is to describe the marital status and marital characteristics of patients with schizophrenia and to investigate the sociodemographic and clinical characteristics that may be related to their marital history.

**METHODS:** The study was conducted in the Psychotic Disorders Outpatient Clinic of the Psychiatry Clinic of Selçuk University Faculty of Medicine. Informations was obtained from accessible patients and their relatives who agreed to answer the data questionnaires, and from hospital file records. "Sociodemographic data questionnaire", "Clinical characteristics and treatment history data questionnaire" and "Marital history data questionnaire" prepared by the researchers were applied to 100 male and 90 female patients with Schizophrenia and other Psychotic disorders who met the conditions. In addition to the data questionnaire, narrative descriptive interviews were conducted with couples whose marriages were ongoing and those who did not. The study received ethics approval from the Selçuk University Ethics Committee (262).

**RESULTS:** A total of 324 patients were evaluated in the study. Data of 215 patients used for analysis. According to the preliminary data of the study, 43.2% of the female patients included in the study were single, 26.8% were legally married, 4.3% were religiously married, 17.8% were divorced, 4.4% were married. Some of them lost their spouses. The marriage duration of legally married female patients was determined as  $16.37 \pm 11.56$  (1-35) years. 59.0% of male patients are single, 25.0% are legally married, 1.0% are religiously married, and 15.0% are separated from their spouses. The marriage duration of legally married men was observed to be  $22.41 \pm 10.29$  (4-48) years. While 50.0% of divorced female patients stated that divorce had a relationship with their disease, 53.8% of divorced male patients reported that divorce had a relationship with their disease. There was no significant difference between the rates of patients with a premarital psychotic illness informing their prospective spouses before marriage and the rates of hiding the disease.

**CONCLUSIONS:** We don't know much about the marriage histories of patient with schizophrenia especially in our country. Many areas such as information about how the marriages of schizophrenia patients take place, how they last or end, how marriage affects the course of the disease, how the disease affects the course of the marriage, the interaction of couples, the difficulties encountered in raising their children, and the social support of patients should be defined better. We need to know the patient's problem areas in order to better assist them with their rights and needs.

**Keywords:** marriage, psychosis, schizophrenia

## THE RELATIONSHIP BETWEEN INTIMATE PARTNER VIOLENCE, CHILDHOOD TRAUMAS, ALEXITHYMIA AND COPING STYLES WITH STRESS

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**BACKGROUND AND AIM:** This study aimed to determine the sociodemographic characteristics, childhood traumas, alexithymia and styles of coping with stress in women who were exposed to intimate partner violence and examine the relationship of these features with partner violence in comparison with women who were not exposed to violence.

**METHODS:** The study was approved by the ethics committee decision: 2022/13-15.42 women who were exposed to intimate partner violence and 42 women as control group were included. Sociodemographic data form, DSM-5 Diagnostic Exam, Toronto Alexithymia Scale (TAS), Childhood Trauma Questionnaire (CTQ-33) and Coping Style Scale (CSS) were applied. Obtained data were compared between the two groups.

**RESULTS:** In the case group, income levels, education levels of the partner and the employment rate of the partner were lower; divorce, living apart from spouse, elopement, forced marriage, witnessing domestic violence in childhood and perpetrating violence against their children were found to be more common. In the case group, mean scores of TAS, CTQ-33 and Ineffective Coping subscale of CSS were higher (respectively  $p=0.002$ ,  $p=0.015$ ,  $p=0.002$ ) whereas mean score of Effective Coping subscale of CSS was lower ( $p=0.012$ ). Alexithymia levels were found to be negatively correlated with effective stress coping styles, and positively with ineffective stress coping styles (respectively Pearson correlation test  $p=0.007$ ; Spearman correlation test  $p=0.002$ ). Alexithymia and childhood traumas were found to have a predictive effect on partner violence (Binary logistic regression analysis  $p=0.035$ ,  $p=0.019$ ).

**CONCLUSIONS:** In our study, high alexithymia levels and childhood traumas were found to pose a risk for exposure to intimate partner violence. The fact that women who have been exposed to partner violence have a higher rate of history of abuse or witnessing domestic violence in childhood and perpetrating violence against their children indicate the importance of breaking the intergenerational cycle in preventing violence. Evaluation of alexithymic traits and styles of coping with stress in women who are victims of violence will contribute to the process of therapy of these women. Understanding the factors associated with intimate partner violence is important in studies on preventing violence and reducing its negative consequences.

**Keywords:** alexithymia, coping, childhood trauma, domestic violence, intimate partner violence

## EVALUATION OF DIAGNOSIS AND TREATMENT PROCESSES OF PATIENTS HOSPITALIZED AND TREATED IN A PSYCHIATRIC CLINIC BEFORE AND AFTER THE COVID-19 PANDEMIC

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**BACKGROUND AND AIM:** For future epidemics, it is crucial to look into the pandemic's consequences, particularly on people receiving treatment in psychiatric institutions due to severe mental illness. The aim of this study is to assess and compare the clinical features, therapeutic approaches, and sociodemographic traits of patients receiving inpatient care in a psychiatric ward pre-pandemic with those receiving inpatient care in the same psychiatric ward post-pandemic.

**METHODS:** The study was approved by the Ethics Committee of Eskişehir Osmangazi University with decision number 38 on 20.12.2022. The study comprised 344 hospitalizations from the pandemic period and 547 hospitalizations from the pre-pandemic period. The data forms were completed using the records of the epicrisis, retrospectively.

**RESULTS:** In the post-COVID-19 period, there was a significant increase in the application of depot antipsychotic medication ( $p < 0.05$ ). There was a statistically significant difference ( $p < 0.05$ ) between the two groups for the average number of ECT sessions used: 7.13 ( $\pm 2.69$ ) sessions were applied in the post-COVID-19 period, compared to 11.18 ( $\pm 4.38$ ) sessions in the pre-COVID-19 period. It's shown that a considerably larger percentage of hospitalizations in the post-COVID-19 group occurred through the emergency department, and that this was associated with a higher likelihood of suicide ideation during hospitalization ( $p < 0.05$ ). In the psychiatric ward, patients in the pre-Covid-19 group spent an average of 27.42 ( $\pm 20.82$ ) days; patients in the post-Covid-19 group spent an average of 21.90 days ( $\pm 16.63$ ) days and a statistical difference between the two groups was found ( $p < 0.05$ ). The diagnostic distribution, clinical features and sociodemographic information of patients admitted to the mental unit were shown to be unaffected by the pandemic ( $p > 0.05$ ).

**CONCLUSIONS:** We believe that our study's findings are important for analyzing how the COVID-19 epidemic has affected patients with severe mental illness undergoing inpatient care in the psychiatric hospital and how it has affected the therapeutic options available to physicians.

**Keywords:** COVID-19 pandemic, psychiatric ward, severe mental illness.

## THE RELATIONSHIP BETWEEN ATTACHMENT AND THEORY OF MIND FUNCTIONS IN MAJOR DEPRESSION PATIENTS WITH AND WITHOUT TRAUMA HISTORY

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**BACKGROUND AND AIM:** Theory of mind (ToM) skills are based on the relationship with the caregiver, thought to be the first attachment relationship. It has been shown that childhood traumatic experiences, suggested to play a role in the formation of attachment styles, also play a role in the etiology of depression. Accordingly, our aim was to examine major depressive disorder (MDD) patients with and without a history of trauma in terms of attachment styles and ToM functions.

**METHODS:** Ethics committee approval: 29/09/2021-20/VI. The study included 51 patients diagnosed with MDD and 51 healthy individuals. The participants were administered the Hamilton Depression Rating Scale, Adult Attachment Style Scale, Reading the Mind in the Eyes test (Eyes Test), Dokuz Eylül Theory of Mind Scale (DEZTÖ) and Childhood Trauma Questionnaire (CTQ).

**RESULTS:** The groups were sociodemographically similar. The depression group had higher CTQ scores ( $p < 0.001$ ). Avoidant attachment style was more common in the depression group ( $p < 0.001$ ); second-order false belief reasoning, irony comprehension, DEZTÖ score and Eyes Test score were significantly lower ( $p = 0.007$ ,  $p = 0.002$ ,  $p < 0.001$ ,  $p < 0.001$ ). Trauma history was defined according to the cut-off value of 35 points recommended in the validity and reliability study. Secure attachment and irony comprehension were higher in patients with history of trauma ( $p = 0.021$ ,  $p = 0.002$ ). There was negative correlation between secure attachment score and faux pas recognition score in patients without history of trauma ( $r = -0.622$ ,  $p = 0.041$ ). In patients with history of trauma, there was negative correlation between the secure attachment score and the second-order false belief reasoning score ( $r = -0.444$ ,  $p = 0.004$ ), and positive correlation between the anxious-ambivalent attachment score and the faux pas recognition score ( $r = 0.404$ ,  $p = 0.010$ ).

**CONCLUSIONS:** In our study, secure attachment was more common in patients with history of trauma, different from the literature data associating insecure attachment with trauma and depression. The literature on the relationship between trauma and ToM skills is conflicting. The finding that irony comprehension was higher in patients with a history of trauma supports the idea that there may be an increased sensitivity to interpersonal cues due to trauma.

**Keywords:** depression, childhood trauma, theory of mind, attachment, mentalizing

## PSYCHIATRIC COMORBIDITIES IN ADVANCED HEART FAILURE PATIENTS: EXPLORING RELATIONSHIPS WITH SOCIODEMOGRAPHIC, CLINICAL, AND INFLAMMATORY VARIABLES

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**BACKGROUND AND AIM:** Psychiatric disorders, such as major depressive disorder (MDD) and anxiety disorder (AD), commonly coexist with heart failure (HF). Existing literature indicates associations both HF and certain psychiatric disorders, particularly MDD, with inflammation. Our study aim to explore psychiatric comorbidities in advanced HF patients and examine the relationship between these diagnoses and sociodemographic, clinical and inflammatory variables.

**METHODS:** Ethical approval (KA23/271) was obtained from the Başkent University Clinical Research Institutional Review Board. 94 patients admitted to the psychiatry department for left ventricular assist device (LVAD) implantation and heart transplantation planning were included in the study between 2015-2023. Consultation notes, clinical information, and laboratory results were obtained from electronic medical records. Patients with a new diagnosis during the consultation and those with a history of psychiatric diagnosis were classified as having psychiatric comorbidity.

**RESULTS:** During psychiatric evaluation, active psychiatric symptoms were identified in 35 patients. Among them, 15 (16%) had MDD, and 20 (21.3%) had AD. Sixteen patients (17%) without prior psychiatric history received new diagnoses. Twenty-one patients (22.3%) were using psychiatric medication, including 15 (15.9%) on antidepressants. No significant differences were observed in ejection fraction (EF), cardiac etiology, and treatment strategy (LVAD or heart transplantation) between those with and without psychiatric comorbidity ( $p>0.05$ ). Except for MPVLR ( $p=0.01$ ) inflammatory markers like CRP, NLR, and PLR showed no significant differences between the two groups ( $p>0.05$ ).

**CONCLUSIONS:** The study results affirm a higher prevalence of psychiatric comorbidity in HF patients. Nevertheless, when HF is accompanied by psychiatric disorders, no significant differences in inflammatory markers were observed between the groups. This suggests a potential masking effect, indicating that the coexistence of HF and psychiatric disorders may mask their individual associations with inflammation, likely due to shared pathogenesis linked to inflammation.

**Keywords:** heart failure, heart transplantation, left ventricular assist device, psychiatric comorbidities, inflammation

## THE RELATIONSHIP BETWEEN SPIRITUAL WELL-BEING AND POST-EARTHQUAKE TRAUMA, ANXIETY, DEPRESSION LEVELS

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**BACKGROUND AND AIM:** Spirituality is the effort of individuals to understand their position in the world, their relationship with society, their life's purpose. It can be defined as the experience of connecting with oneself, others, nature, and the sacred. Besides being an important component of life quality, spirituality is considered a value that enhances both psychiatric and chronic disease coping skills. The earthquakes that occurred on February 6, 2023, in our country caused serious fear and concern among people. In this study, the effect of spiritual well-being on earthquake-related psychiatric symptoms are investigated.

**METHODS:** In the study, participants living in Malatya were asked to answer questions of demographic information, Post-Earthquake Trauma Level Determination (PETLDS), Spiritual-Well-Being (SWBS), and Hospital Anxiety-Depression Scales (HADS) via GoogleForms. The approval was obtained from the Ethics Committee of Inonu University (2024/5741).

**RESULTS:** A total of 538 people, aged 18-65, 343 female (63.75%) participated in the study. 271 of the participants are married (50.37%), 69.14% are university graduates, 10.97% are high school and lower graduates. The PETLDS scores of females, those injured in the earthquake, those who lost their relatives, those with a history of psychiatric treatment are higher than others ( $p<0.05$ ). Negative correlations are found among three PETLDS subscales which are behavioral problems ( $r=-.109^*$ ,  $p=0.011$ ), emotional limitations ( $r=-.205^*$ ,  $p\leq 0.001$ ), sensory limitations ( $r=-.150^{**}$ ,  $p\leq 0.001$ ) and SWBS total scores. No correlation is found between cognitive limitations, sleep problems, PETLDS total scores, and SWBS total scores. There is a negative correlation between SWBS and anxiety ( $r=-.205^{**}$ ,  $p\leq 0.001$ ) and depression ( $r=-.136^{**}$ ,  $p=0.002$ ) scores.

**CONCLUSIONS:** Although our study doesn't exactly show that spirituality prevents traumatization, it demonstrated that it is a protective factor in some symptoms of trauma and development of depression and anxiety. The low sample size and the heterogeneity of demographic variables may prevent the generalization of the obtained results to the overall population but findings emphasize the importance of respecting patients' spiritual values and supporting efforts to find meaning in life have been obtained in our clinical practices. Future studies conducted with larger samples will provide further insight into this matter.

**Keywords:** anxiety, depression, earthquake, spiritual, trauma

## INVESTIGATION OF THE RELATIONSHIP BETWEEN SOCIAL MEDIA USE AND LONELINESS LEVEL, DEPRESSION AND ANXIETY SYMPTOMS IN INDIVIDUALS OVER THE AGE OF 65 WHO ADMIT TO THE PSYCHIATRY OUTPATIENT CLINIC

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**BACKGROUND AND AIM:** Social media, by altering the ways in which people communicate and interact with each other, has taken human communication and interactions to a different dimension. It has incredibly accelerated access to information, events in our surroundings, and the world at large. The increase in social media usage among the elderly population has led to a growing need for studies in this area.

**METHODS:** Our study aims to investigate the relationship between social media usage and levels of loneliness, depression, and anxiety symptoms in individuals aged 65 and above. In this context, 140 individuals over the age of 65 who use social media were included in our study. Sociodemographic data form, geriatric depression scale, geriatric anxiety scale, loneliness scale for elderly individuals, social media addiction scale and purpose of using social networks scale were applied to the participants. Statistical analyzes were performed using SPSS Statistics 22.0. Approval for the study was received from Mersin University Faculty of Medicine Ethics Committee at session number 631 dated 14.09.2022.

**RESULTS:** In our study, it was determined that elderly female individuals frequently use social media for content sharing and entertainment purposes, while elderly male individuals use it to initiate communication. The study revealed that employment status, income level, and educational background are associated with the duration and purposes of social media usage. Additionally, social media usage hours and levels of addiction were found to be related to symptoms of depression and levels of loneliness.

**CONCLUSIONS:** In the literature, there are numerous studies examining the relationship between social media use and levels of loneliness and depression. However, the number of studies specifically conducted with elderly individuals is quite limited. For this reason, prospective follow-up studies in elderly individuals will contribute to clarifying the relationship between depression, anxiety and loneliness levels and social media.

**Keywords:** mental diseases, old age, social media, anxiety, depression, loneliness

## THE RELATIONS BETWEEN VOLUNTARINESS FOR HOSPITALIZATION, HOSPITALIZATION TYPE, DISEASE INSIGHT, AND TREATMENT PARAMETERS AMONG PSYCHIATRIC PATIENTS

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**BACKGROUND AND AIM:** Ethical considerations persist as significant obstacles in routine clinical practice, influencing decisions related to treatment modality, dosage, and duration. This study aims to determine the impact of voluntariness in psychiatric hospitalizations on various treatment parameters, such as the duration of treatment, drug dosages, and the utilization of depot therapy.

**METHODS:** The medical records of the patients who were admitted to the psychiatric ward of a university hospital were examined. Patients were classified according to the voluntariness (V) and illness insight (İ) [V-I, non-V-I, V-non-I, non-V-non-I] and compared in terms of the duration of treatment, antipsychotic (chlorpromazine equivalent) dose, and the utilization of long-acting antipsychotic drugs (LAAD)(ethical approval)no: 2022/156).

**RESULTS:** The mean duration of hospitalization for the V(28.2±18.2) and non-V (36.2± 21.7) groups were significantly different (t=-3.22;p=.001). The mean duration of hospital stays for V-İ(27,7±19,5), non-V-İ(29,5±15,0), (V-non-I: 32,3±19,7), and non-V-non-I(38,3±22,6) patients were significantly different (F: 4.34, p: .005).The duration of hospitalization for Non-V-non-I-group was significantly longer than V-I(p=.001) and V-non- I(p=.019). It was shown that the use of LAAD was statistically significantly higher in the non-V compared to the V, both at admission ( $\chi^2 = 5.49, p = 0.015$ ) and prior to discharge( $\chi^2=8.16,p=0.003$ ). However, post-hoc results indicate that insight was not a significant predictor. Drug dosages did not differ for the V and non-V (t = -.915, p = .361) as well as among the four groups (F=.610,p=.609). This was also the case for the utilization of LAAD (t=-.982, p=.329; F=.931, p=.430, respectively).

**CONCLUSIONS:** Our findings suggest a noteworthy association wherein patients who are non-voluntary for hospitalization experience prolonged durations of hospital stays, irrespective of their level of insight. Notably, the administration of LAAD was observed to be more frequent in the non-voluntary group. \*These findings suggest that, in the absence of a medical criterion to explain the difference, involuntary and non-insightful patients may have been stigmatized as non-compliant and thus indirectly “penalised” by the healthcare professionals automatically.

**Keywords:** involuntary admission, respect for autonomy, stigmatization, insight



## EVALUATION OF UNAFFECTED SIBLINGS OF INDIVIDUALS DIAGNOSED WITH SCHIZOPHRENIA IN TERMS OF CHRONOTYPE PREFERENCE AND HIGH RISK FOR PSYCHOSIS, EXAMINATION OF THE RELATIONSHIP BETWEEN HIGH RISK FOR PSYCHOSIS AND CHRONOTYPE PREFERENCE

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**OBJECTIVE:** Aim of our study was to compare chronotype preferences in schizophrenia patients, their unaffected siblings and healthy controls; identify various clinical-sociodemographic characteristics that may be associated with chronotype preferences and examine the relationship between high risk for psychosis and chronotype preference.

**METHODS:** 178 patients with schizophrenia, their healthy siblings and healthy controls were evaluated with SCID-5 and Munich Chronotype Questionnaire. Brief Psychiatric Rating Scale was administered to patient group and Community Assessment of Psychic Experiences-42 (CAPE-42) was administered to sibling and control groups. (Ankara City Hospital Ethics Committee approval date: 12/07/2023 number: E1-23-3762)

**RESULTS:** Morningness and eveningness ratio was significantly higher in the patient group than the control group before diagnosis and in the last 1-month period ( $p < 0.05$ ). Circular data analysis revealed that the variance between groups was different ( $p < 0.001$ ) according to mid-sleep. Z values showing mid-sleep variability were similar in the patient group before diagnosis and in the last month ( $p > 0.05$ ). Mid-sleep Z values in the last month were different between the patient and control groups ( $p = 0.001$ ). In the sibling group, it was similar to the other two groups ( $p > 0.05$ ). In regression analysis in all participants, being schizophrenia, number of cigarettes consumed in the evening significantly ( $p < 0.05$ ) and being siblings and age nearly significantly ( $p = 0.076$ ,  $p = 0.06$ ) predicted mid-sleep variability. In schizophrenia patients, daily cigarette consumption and tea/coffee consumption in evening were associated with mid-sleep variability ( $p = 0.021$ ,  $p = 0.05$ ). The correlation wasn't significant between CAPE-42 and mid-sleep variability ( $p > 0.05$ ).

**CONCLUSIONS:** It was observed that schizophrenia patients had an endogenous difficulty in regulating circadian rhythm and siblings had similar difficulties, although not as much as patients. We thought that schizophrenia patients use cigarettes, tea or coffee as zeitgebers to cope with the endogenous irregularity in their circadian rhythms. Our findings suggests that the endogenous irregularity in circadian rhythms may be an independent phenomenon and should be taken into account during the evaluation of risky individuals.

**Keywords:** schizophrenia, chronotype, sibling, high risk of psychosis, circadian rhythm.

## ANXIETY LEVEL AND STRESS COPING STYLES IN PATIENTS WITH GENERALIZED ANXIETY DISORDER WITH ADULT SEPARATION ANXIETY

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**BACKGROUND AND AIM:** Anxiety disorders are common mental health conditions. Includes generalized anxiety disorder (GAD), social anxiety disorder, panic disorder, separation anxiety disorder, and phobias. Before DSM-5, separation anxiety disorder (SAD) was considered a mental disorder that usually occurred during childhood. DSM-5 has classified it as a disorder that affects all age groups and can be diagnosed throughout the individual's life. Despite this, adult separation anxiety disorder (ASAD) is overlooked in the clinic. In this study, anxiety levels and styles of coping with stress were evaluated in patients with generalized anxiety disorder with ASAD.

**METHODS:** Before starting this study, approval was obtained from the Kafkas University Faculty of Medicine ethics committee. (On 28.12.2021, Meeting number: 2021/11, Decision no: 16, Incoming document no: 212). Individuals aged 18-39 (n=84) diagnosed with GAD according to DSM-5 were included in the study. Adult Separation Anxiety Questionnaire (ASAQ), Separation Anxiety Symptom Inventory (SASI), Beck Anxiety Inventory (BAI), The Styles of Coping with Stress Scale (CSS), and a form prepared by the authors to evaluate sociodemographic characteristics were applied to the participants.

**RESULTS:** According to the SASI cut-off score, 51 (60.7%) participants had ASAD, and according to the ASAQ cut-off score, 66 (78.6%) participants had childhood SAD. When the groups with and without ASAD were compared, the level of anxiety and CSS-Helpless were significantly higher and CSS-Optimistic was lower in the group with ASAD. There was a positive correlation between the BAI score and ASAQ, SASI, and CSS-Submissive score, and a negative significant correlation between the BAI score and CSS-seeking social support score in both all GAD patients and GAD patients with ASAD.

**CONCLUSIONS:** There is a significant rate of ASAD in patients diagnosed with GAD. In the presence of ASAD with GAD, the level of anxiety is higher, and styles of coping with stress may change.

**Keywords:** generalized anxiety disorder, separation anxiety, coping style

## COMPARISON OF THE DIAGNOSES AND DEMOGRAPHIC CHARACTERISTICS OF PATIENTS ADMITTED TO THE PSYCHIATRY POLYCLINIC OF A UNIVERSITY MEDICAL FACULTY HOSPITAL BEFORE AND DURING THE COVID-19 PANDEMIC

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**BACKGROUND AND AIM:** The coronavirus-19 disease emerged in China in December 2019 and then spread to the whole world. In our study, it was aimed to compare the demographic and diagnostic data of the patients who applied to our Mersin University Hospital Psychiatry polyclinic in the pre-pandemic period with the demographic and diagnostic data after the declaration of the pandemic in order to examine the effects of the COVID-19 pandemic on mental health.

**METHODS:** In our study, the automation records of patients who applied to the psychiatry outpatient clinic of Mersin University Medical Faculty Hospital between 1 March-1 July 2019 (pre-pandemic), 1 March- 1 July 2020 and 1 March-1 July 2021 (pandemic period) were evaluated retrospectively. Approval for this study was received from Mersin University Faculty of Medicine Clinical Research Ethics Committee with the decision dated 03/11/2021 and numbered 2021/686.

**RESULTS:** Compared to the pre-pandemic period (n: 4117), the number of patient admissions decreased significantly during the pandemic (in 2020 n: 2182 in 2021 n: 3360). The rate of diagnosis of anxiety disorders during the pandemic period has increased significantly compared to the pre-pandemic period ( $p < 0,05$ ). Anxiety disorders have increased even more in the same months of 2021 (%17,8) compared to March-July 2020 (%13,5), the beginning of the pandemic in our country. During the pandemic period, the rate of diagnosis of depressive disorder decreased significantly compared to the pre-pandemic period ( $p < 0,05$ ). A significant increase was observed in the rate of diagnosis of neurodevelopmental disorders during the pandemic period. The rate of disorders within the scope of schizophrenia expansion and psychosis is significantly lower in 2021 (% 8,6) than in 2020 (%10.7), which is the first onset of the pandemic in our country.

**CONCLUSIONS:** It is critical to provide adequate resources and take the necessary measures to reduce the negative effects of epidemics on people's psychology and well-being.

**Keywords:** COVID-19, demographic data, pandemic, the psychological impact

## EVALUATION OF PERIPHERICAL INFLAMMATION INDICATORS IN OBSESSIVE COMPULSIVE DISORDER AND EUTHYMIC BIPOLAR DISORDERS

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**BACKGROUND AND AIM:** The neutrophil to lymphocyte ratio (NLR), platelet to lymphocyte ratio (PLR), monocyte to lymphocyte ratio (MLR), systemic immune inflammation index (SII) were peripheral inflammation indicators obtained from complete blood count. The studies about these indicators are increasing relating them to malignities, cardiovascular diseases and psychiatric disorders. There are no known studies examining the systemic immune inflammation index of patients diagnosed with obsessive-compulsive disorder (OCD) and in euthymic bipolar disorder (BD). The aim of this study is to obtain and evaluate the results of NLR, PLR, MLR, and SII in patients diagnosed with OCD and in euthymic BD.

**METHODS:** This retrospective study included 52 healthy controls, 49 OCD and 34 euthymic BD patients who consulted to Zonguldak Bulent Ecevit University Hospital between the dates 20.02.2022-20.01.2023 and were eligible for the inclusion criteria of the study. We analyzed the participants' complete blood counts obtained from the hospital records and the values for NLR, MLR, PLR, and SII were calculated. This study was approved by Zonguldak Bulent Ecevit University Clinical Studies Ethical Committee on Feb 08,2023 with an approval number of 2023/03.

**RESULTS:** A significant difference was found between OCD and euthymic BD groups regarding the values of NLR, MLR, PLR, and SII indicators ( $p=0.014$ ,  $p=0.035$ ,  $p<0.001$ ,  $p=0.003$ , respectively). A significant difference was found between OCD group and healthy controls regarding the values of NLR, MLR, PLR, and SII indicators ( $p=0.003$ ,  $p<0.001$ ,  $p<0.001$ ,  $p=0.022$ , respectively). No significant difference was observed between euthymic BD group and healthy controls regarding NLR, MLR, PLR, and SII values of the participants ( $p=0.560$ ,  $p=0.471$ ,  $p=0.230$ ,  $p=0.051$ , respectively).

**CONCLUSIONS:** Regarding the previous studies in literature, these results indicate a strong relation between inflammation and the pathologies of OCD and BD.

**Keywords:** psychiatric disorder, inflammation, obsessive compulsive disorder, bipolar disorder, euthymic

## COMPARISON OF METACOGNITION AND METAEMOTION IN BREAST CANCER PATIENTS WITH HEALTHY CONTROLS

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**BACKGROUND AND AIM:** Breast cancer isn't only a life-threatening disease, but also a mentally challenging process as it affects the organ associated with sexuality and femininity. The aim of this study was to compare metacognition and metaemotion characteristics of breast cancer patients with healthy controls.

**METHODS:** The study included 100 breast cancer patients and 74 healthy women as controls. Sociodemographic form, Hospital Anxiety Depression Scale (HADS), Metaemotion Scale (MES) and Metacognitive Assessment Scale-Abbreviated (MAS-A) were applied to the participants. The study was approved by Hospital Clinical Ethics Committee (E2-23-4879, 06/09/2023).

**RESULTS:** The control group's mean age was 51.54±6.39, whereas the patients' mean age was 53.28±8.88. No significant difference was found between the control and patients in terms of age, marital status, schooling, household members, psychiatric illness history, chronic health condition, and family psychiatric history ( $p>0.05$ ). Although both groups didn't have major depressive or anxiety disorders, a statistically significant difference was found in terms of mean scores and the HADS-Anxiety and HADS-Depression scores of the patients were lower ( $p<0.001$ ).

When MES subscale scores were compared, it was found that the mean score of the patients' MES-Compassionate care and MES-Interest were found to be statistically significantly higher compared to the controls ( $p<0.001$ ). There was no statistically significant difference between the groups in terms of MES-Anger, MES-Thought control, MES-Suppression and MES-Shame ( $p=0.183$ ,  $p=0.661$ ,  $p=0.769$ ,  $p=0.233$ ). As a result of the evaluation of metacognitions, patients' mean scores were statistically significantly higher than the controls in the total score and all subscales of MAS-A ( $p<0.001$ ).

**CONCLUSIONS:** In this study, it was found that metacognitions and metaemotions in patients with breast cancer differed from healthy controls, and positive metaemotions and all sub-dimensions of metacognitions were higher in the patients. It can be suggested that cancer is an important clinical condition that can shape people's metacognition and metaemotions.

**Keywords:** breast cancer, metacognition, metaemotion

## THE RELATIONSHIP BETWEEN SEPARATION ANXIETY DISORDER AND ATTACHMENT STYLES, CHILDHOOD TRAUMA, PRENATAL ATTACHMENT IN PREGNANT WOMEN: A PRELIMINARY STUDY

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**BACKGROUND AND AIM:** Attachment is defined as an emotional bond with consistency and continuity, manifested by the search for closeness between the child and the caregiver. Separation anxiety, originating from attachment theory, is defined as the state of anxiety experienced by an individual when separated from an attachment figure or when there is an expectation of separation. Our aim in the current study is to reveal the possible relationship between adult separation anxiety disorder (ASAD) and attachment styles, childhood trauma, prenatal attachment in pregnant women.

**METHODS:** The study was designed as a cross-sectional study comparing groups with and without ASAD in pregnant women in their 3rd trimester. Participants were evaluated with the Sociodemographic Form, Adult Separation Anxiety Questionnaire-27, Adult Attachment Style Scale, The Parental Bonding Instrument, Childhood Trauma Questionnaire-33, Prenatal Attachment Inventory, Structured Clinical Interview for Separation Anxiety Symptoms, and Structured Clinical Interview for DSM-5 (SCID-5). Ethics committee approval was received from IMU Goztepe Training and Research Hospital. Decision number: 2023/0631

**RESULTS:** A total of 63 participants were interviewed. ASAD was detected in 27(%42.9) of the patients. Anxious/ambivalent attachment and maternal overprotection were found to be significantly higher in patients with ASAD ( $p<0.001$ ). In patients with ASAD, a significant relationship was found between negative attachment to the mother and paternal overprotection ( $p<0.05$ ). Sexual abuse from childhood trauma was significantly more common in patients with ASAD ( $p<0.05$ ).

**CONCLUSIONS:** Our findings support the literature indicating that ASAD is more common in pregnant women than in the general population. It is important to screen all pregnant women and provide early intervention to those with ASAD. The higher frequency of ASAD in pregnant women with anxious/ambivalent attachment and a history of childhood sexual abuse highlights the importance of early life events. Therefore, ensuring a secure attachment between the child and the caregiver and promoting a healthy childhood is crucial. Further investigation into other factors that may influence ASAD during pregnancy and longitudinal studies that include the postpartum period is needed.

**Keywords:** attachment styles, childhood trauma, pregnant women, prenatal attachment, separation anxiety disorder



## EVALUATION OF THE RELATIONSHIP BETWEEN PSYCHOLOGICAL FLEXIBILITY, INSOMNIA, JOB SATISFACTION AND NIGHT EATING BEHAVIOR AMONG MEDICAL DOCTORS

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**BACKGROUND AND AIM:** Medical doctors (MDs) often face significant psychological and physical health challenges due to factors like intense stress, extended work hours and demanding work environments. These challenges can manifest as issues such as a lack of psychological flexibility (PF), insomnia, low job satisfaction (LJS), and night eating behaviors (NEB), all of which may be interconnected. Our aim is to explore the relationships between PF, insomnia, JS, and NEB among MDs and to devise effective intervention strategies.

**METHODS:** MDs working at Atatürk University Medical Faculty were evaluated through an online form. Participants were assessed using sociodemographic information form (including age, gender etc.), Insomnia Severity Index, PF, JS, and NEB scales. Ethical approval was obtained on 21.02.2024/B.30.2.ATA.0.01.00/101.

**RESULTS:** Out of the 100 participants, 60 were female and 40 were male. Mean age was  $31.23 \pm 4.95$  years. Mean JSS score was  $64.27 \pm 13.84$ . Mean PFS score was  $119.88 \pm 14.55$ . Mean ISI score was  $9.35 \pm 5.85$ . Insomnia was determined in 58 individuals. Mean NEB score was  $18.22 \pm 7.02$ . NEB was identified in 20 individuals. There was no significant difference in terms of gender regarding PE, JS, insomnia, and NEB ( $p > 0.05$ ). Positive correlation was observed between insomnia and NEB ( $r = 0.517$ ,  $p < 0.001$ ), between JS and PE ( $r = 0.432$ ,  $p < 0.001$ ). A negative correlation was found between JS and insomnia ( $r = -0.206$ ,  $p < 0.001$ ), as well as between insomnia and PE ( $r = -0.332$ ,  $p < 0.001$ ). There was no significant relationship between PE and JS with NEB ( $p > 0.05$ ).

**CONCLUSIONS:** We found potential relationships among factors such as JS, PF, insomnia, and NEB. Positive correlation between JS and PF suggests higher level of PF may enhance JS. Negative relationship between JS and insomnia indicates insomnia could reduce JS. Negative correlation between insomnia and PF implies poor sleep quality might diminish PF. Lack of relationship between NEB and PF/JS suggests NEB may not directly impact psychological well-being and professional experiences. PF appears to have a positive influence on JS and sleep quality. Improving working conditions may enhance doctors JS and psychological resilience.

**Keywords:** insomnia, job satisfaction, night eating behaviors, psychological flexibility

## REFLECTIVE FUNCTIONING SKILLS AND ATTACHMENT PATTERN OF WOMEN DURING PREGNANCY, POSTPARTUM DEPRESSION AND ITS RELATIONSHIP WITH MOTHER-BABY INTERACTION

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**BACKGROUND AND AIM:** In this study, women during pregnancy; we aimed to investigate the relationship between mentalization skills, prenatal attachment characteristics and adult attachment styles with postpartum depression (PPD) and mother-infant interaction, and to identify factors that may be associated with PPD in order to prevent maternal mortality and complications that may arise in the baby.

**METHODS:** During pregnancy, the Sociodemographic and Clinical Evaluation Form, Beck Depression Inventory (BDI), Parental Internal Reflective Functioning Scale (EIDIO), Prenatal Attachment Inventory (PBE), Close Relationship Experiences Inventory II (IRI) were administered to 84 women. Edinburgh Postpartum Depression Scale (EDDSS) and Mother-Baby Attachment Scale (ABBS) were administered to 53 participants who could be reached postpartum period. Approval for the study was received by the Ethics Committee of Mersin University Faculty of Medicine at the 06 meeting numbered 2022/09 dated 09.06.2022.

**RESULTS:** As a result of our study; it has been determined that low marriage age ( $p = 0,016$ ), unplanned pregnancy ( $p = 0,006$ ), and more than one child ( $p = 0,039$ ) increase the risk of depression during pregnancy. High scores of anxious attachment ( $p = 0,038$ ) and low mentalization capacity ( $p = 0,025$ ) were associated with the risk of PPD. When regression analysis was performed according to the groups categorized as prenatal and postnatal, it was determined that the factor that best predicted PPD was mentalization capacity.

**CONCLUSIONS:** Controlling early marriages and preventing unwanted pregnancies through widespread use of family planning practices will be protective in terms of pregnancy depression. It would be useful to develop mentalization-based therapies that focus on improving the parent's ability to perceive the child's inner world and their own as separate elements and to act accordingly. Further studies are needed to determine the role of mentalization skills and attachment styles in the development of PPD in more detail and to understand their relationship with mother-infant interaction.

**Keywords:** attachment, mentalization, postpartum depression, pregnancy

## THE IMPACT OF OBSESSIVE BELIEFS ON EMOTION DYSREGULATION IN PATIENTS WITH PANIC DISORDER: NEW RELATIONSHIPS, NEW INTERVENTIONS

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**BACKGROUND AND AIM:** Given the observed treatment resistance and frequent relapses despite current therapeutic approaches, Panic Disorder (PD) emerges as a psychiatric disorder necessitating further exploration into alternative etiological explanations and phenomena associated with treatment resistance. In our study, we aim to investigate the relationship between obsessive beliefs, initially identified in Obsessive-Compulsive Disorder (OCD) and the known difficulties in emotion regulation within the etiology of PD. Thus, our objective is to lay a foundational understanding in this previously unexplored area and potentially open avenues for different interventions, particularly within the context of therapeutic processes.

**METHODS:** Our study received ethics committee approval from Van Yüzcüncü Yıl University Faculty of Medicine on 19/11/2021, numbered 2021/12-19. We enrolled 60 PD patients aged 18-65, diagnosed according to DSM-5 criteria, from the Psychiatric Outpatient Clinic of Yüzcüncü Yıl University, along with 55 healthy controls. Participants completed sociodemographic forms, the Difficulties in Emotion Regulation Scale (DERS), and the Obsessive Beliefs Questionnaire (OBQ) for assessment.

**RESULTS:** Scale scores were significantly higher in the patient group compared to controls, except for the DERS Awareness subscale ( $p < 0.001$ ). Moderate positive correlations were found in the patient group between total DERS and OBQ scores ( $cor: 0.55$ ), as well as with thought control/importance ( $cor: 0.51$ ) and exaggerated responsibility/perceived threat ( $cor: 0.58$ ) subscales. Weak positive correlation was observed with perfectionism/intolerance of uncertainty ( $cor: 0.44$ ). In the healthy group, correlations weakened or lost significance. Regression analysis in the patient group showed significance for DERS and OBQ scores.

**CONCLUSIONS:** Our findings appear to be consistent with similar studies in OCD. However, as there are no studies focusing on this relationship in PD, we believe that our study sheds light on this gap in the literature. Thus, our research lays the foundation for further research in this area.

**Keywords:** disorder, emotion, obsessive, panic

## PRODROMAL SYMPTOM LEVELS AND AFFECTIVE TEMPERAMENT CHARACTERISTICS IN PATIENTS WITH BIPOLAR DISORDER AND 1ST DEGREE RELATIVES: A CONTROLLED STUDY

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**BACKGROUND AND AIM:** Studies indicate that first-degree relatives of individuals diagnosed with bipolar disorder may exhibit poorer psychiatric and neurological outcomes compared to healthy controls. This phenomenon is evident across various domains such as social cognition, cognitive and temperament characteristics. In our study, we aimed to explore the relationship between prodromal symptoms, affective temperament characteristics, and emotion regulation difficulties in bipolar disorder patients and their first-degree relatives compared to a control group.

**METHODS:** The study was conducted from 01/11/2022 to 01/12/2023, involving patients diagnosed with bipolar disorder aged 18 and above, their first-degree relatives, and volunteers without psychiatric treatment. Data was collected using Sociodemographic Data Form, Difficulties in Emotion Regulation Scale, Bipolar Prodrome Symptom Scale, and TEMPS-A Scale. Ethics approval was obtained from the Academic Board of Erenköy Mental and Neurological Hospital.

**RESULTS:** The study comprised 50 bipolar disorder patients, 50 relatives, and 50 healthy controls. Groups did not significantly differ in age, gender, occupation, cohabitation, smoking, substance use, or additional medical conditions ( $p > 0.05$ ). However, significant differences were observed in marital status, education level, alcohol use, and suicide history ( $p < 0.05$ ). Kruskal-Wallis tests revealed significant differences among healthy controls, patients, and relatives across all scales ( $p = 0.000$ ). Post-hoc analyses showed significantly higher scores for patients and their relatives compared to healthy controls. Patients exhibited significantly higher scores than relatives across all scales.

**CONCLUSIONS:** Given the significant burden of bipolar disorder on society, early identification and prediction of illness onset are crucial. Notably, differences between patient relatives and controls across all scales underscore the importance of close monitoring and involving families in psychotherapeutic interventions. Our findings also highlight the significance of recognizing subthreshold symptoms for understanding the interplay between temperament traits and emotion dysregulation, informing preventive strategies, and facilitating early intervention. Enhanced awareness and accessibility to psychiatric support are imperative for timely diagnosis and treatment.

**Keywords:** bipolar, prodromal, relatives, temperament

## POST-COVID SYNDROME? COVID-19 SURVIVORS SUFFER FROM COGNITIVE DIFFICULTIES, SOMATIC COMPLAINTS AND ANXIETY

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**BACKGROUND AND AIM:** Although primarily known as a respiratory system pathology, COVID-19 may cause various systems and cause serious complications including neuropsychiatric problems. These complications may be formulated as post-COVID syndrome. The current study aims to investigate prolonged cognitive, somatic and psychiatric effects of COVID-19.

**METHODS :** A total number of 120 COVID-19 survivors were compared with 120 health controls in means of three measures, which are Cognitive Failures Questionnaire (CFQ), Body Sensations Questionnaire (BSQ), Hospital Anxiety and Depression Scale (HADS) to assess cognitive difficulties, body perceptions and anxiety/depression. Ethics approval was applied and obtained from the Kafkas University Ethics Committee (Date: 11.03.2021, Decision No: 80576354-050-99/26).

**RESULTS:** Our findings show that COVID-19 survivors have reported significantly more cognitive difficulties, increased body sensations and higher levels of anxiety. The groups did not differ in means of depression scores. Further, the measures were significantly correlated with each other.

**CONCLUSIONS:** This study reveal that COVID-19 survivors suffer from significant cognitive deficits in everyday activities, are significantly more sensitive to various body sensations and have increased anxiety levels. In discordance with the current literature, our findings showed that COVID-19 patients are not more depressed than healthy subjects. In summary, the current study showed that various neuropsychiatric complications may be an important part of prolonged effects of COVID-19.

**Keywords:** COVID-19, neuropsychiatry, post-COVID syndrome, cognitive deficits

## THE EFFECT OF STATE RUMINATION ON SUBLIMINAL PROCESSING OF STIMULUS VALUE: A BACKWARD MASKING PARADIGM STUDY

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**BACKGROUND AND AIM:** Trait rumination (TR) plays a critical role in the development of depressive mood, not only in depression but also in healthy individuals. However, the effect of state rumination (SR) on the processing of emotional stimuli has not been investigate. This study aims to investigate the effect of SR and distraction on affective priming in healthy participants (HP).

**METHODS:** The study included HP with no history of psychiatric illness. A backward masking paradigm was used, in which the values of neutral targets (T) following positive (P) or negative (N) emotional pictures were rated as -1, 0 or 1. Emotional stimuli were counterbalanced for arousal. After rumination induction (RUM) and distraction (DIS), stimulus pairs containing positive and negative primes (PT and NT) were presented in a randomized order. The effects of RUM and DIS on affective priming were compared using rm-ANOVA. The effects of Hamilton Depression Scale (HAMD-17), Hamilton Anxiety Scale (HAMA), and Ruminative Responses Scale scores on the difference between conditions were analyzed by ANCOVA. Analyses were performed using R 4.3.2. Ethics committee approval was received from Baskent University (Project no and date: 23/183; 11/29/2023).

**RESULTS:** The study included 26 participants (age=25.35±4.14 years; 69.3% female). Both brooding ( $r=0.400$ ;  $p=0.043$ ) and reflection ( $r=0.566$ ;  $p=0.003$ ) were correlated with HAMD-17 score. rm-ANOVA revealed a significant difference between the conditions in terms of priming ( $F(3,75)=2.936$ ;  $p=0.039$ ;  $\eta^2=0.105$ ). In the post-hoc analysis, the number of negative stimuli (NS) leading to priming after rumination (RUM-NPr) was higher than after distraction (DIS-NPr) ( $p=0.02$ ). The significance was not remained after controlling for HAMD-17 and HAMA total, but not for age, gender, TR, and depth of distraction and rumination.

**CONCLUSIONS:** Our results suggest that SR serves to increase the impact of negative stimuli independently of TR. Neuroimaging studies with larger samples are needed to further elucidate the specific mechanisms of state rumination.

**Keywords:** state rumination, trait rumination, affective priming, backward masking, subliminal processing

## EVALUATION OF CARDIOVASCULAR RISK AND CARDIOVASCULAR DISEASE RISK FACTORS KNOWLEDGE LEVEL IN SCHIZOPHRENIA PATIENTS

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**BACKGROUND AND AIM:** Cardiovascular diseases are among the top causes of death in schizophrenia patients. Genetic predispositions and antipsychotic treatments negatively affect cardiovascular health in schizophrenia patients. Patients' cognitive symptoms affect the level of personal health information and follow-up. In our study, we aimed to calculate the cardiovascular risk in schizophrenia patients in remission, measure the level of knowledge of cardiovascular disease risk factors, and compare them with healthy controls.

**METHODS:** The study included 51 patients with schizophrenia in remission who applied to Konya Beyhekim Psychiatry Clinic and 44 healthy controls with no psychiatric history. After obtaining written informed consent, the sociodemographic data form, the Cardiovascular Diseases Risk Factors Knowledge Level (CARRF-KL) Scale, and the Framingham Cardiovascular Disease Risk Calculation Scale were applied. Approval was obtained from Karatay University Ethics Committee for the study. (decision number 2022/022).

**RESULTS:** Among the patients with schizophrenia, 34(66.7%) were female and 17(33.3%) were male, while 21(47.7%) were male, 23(52.3%) were female in the healthy group ( $p=0.095$ ). The mean age was  $43.84\pm 10.2$  years in the patients and  $40.57\pm 8.2$  years in the healthy group ( $p=0.089$ ). The mean Framingham Risk Score was 9.46% in the schizophrenia group, and 4.85% in the control group ( $p: 0.003$ ). The mean Body Mass Index was  $29.78\pm 6.38$  kg/m<sup>2</sup> in the schizophrenia group, and  $26.72\pm 4.72$  kg/m<sup>2</sup> in the control group ( $p: 0.006$ ). The mean CARRF-KL Score of the schizophrenia group was  $18.7\pm 4.37$ , while that of the control group was  $23\pm 3.13$  ( $p: 0.001$ ).

**CONCLUSIONS:** Awareness and high level of knowledge about cardiovascular diseases facilitate prevention and taking necessary precautions. In our study, the risk of cardiovascular disease was higher and the level of knowledge about cardiovascular disease was lower in schizophrenia patients compared to the healthy group. Psychiatrists' greater cooperation with patients and their relatives on preventive measures related to the cardiovascular health of schizophrenia patients and follow-up of cardiovascular symptoms will positively affect the course of the disease.

**Keywords:** cardiovascular, CARRF-KL, framingham, remission, schizophrenia

## THE RATE AND ASSOCIATED FACTORS OF PROLONGED GRIEF DISORDER DIAGNOSIS IN HELP-SEEKING PATIENTS

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**BACKGROUND AND AIM:** Prolonged Grief Disorder (PGD) diagnosis is recently recognized by DSM-5-TR and ICD-11; data on its prevalence in medical settings are limited. We aimed to determine the rate of PGD in a clinical sample of bereaved patients and to investigate factors associated with the diagnosis.

**METHODS:** The sample consisted of 53 people who contacted the psychiatry outpatient services of a university hospital with complaints related to bereavement. Symptoms of prolonged grief were screened by the Prolonged Grief Scale-13 (PG-13). In addition, participants were given a self-report survey consisting of sociodemographic information, information about the characteristics of the loss and the deceased, Beck Depression Inventory (BDI), Anxiety Sensitivity Scale (ASS), and Adult Separation Anxiety Questionnaire (ASAQ). The study was approved by Hacettepe University Non-Interventional Clinical Studies Ethics Committee with the number GO20/266.

**RESULTS:** Seventeen patients (32.1%) were diagnosed with PGD using algorithm method based on PGD-2009 criteria. Although the number of men in the sample was small ( $n=3$ ), all three had PGD (100%); and diagnosis rate was higher than women ( $\times 2=4.932$ ,  $p=.026$ ). Grief score ( $U=27.500$ ,  $p<.001$ ), BDI score ( $U=98.000$ ,  $p=.002$ ), and ASAQ score ( $U=137.500$ ,  $p=.038$ ) were higher in PGD group. While BDI score was the only significant factor in binary logistic regression based on PGD diagnosis ( $\beta=1.158$ ,  $p=.026$ ), linear regression revealed that shorter time since loss ( $\beta=-0.034$ ,  $p=.045$ ), loss of a first-degree relative ( $\beta=10.317$ ,  $p=.002$ ), and BDI score ( $\beta=0.385$ ,  $p<.001$ ) were related to higher grief scores.

**CONCLUSIONS:** Results show a resemblance to the findings of previous studies in terms of time since loss, and first-degree loss. Severity of depressive symptoms being the most significant factor in predicting PGD and a high rate of probable depression comorbidity may emphasize the importance of differential diagnosis after bereavement. Understanding the predictors of help-seeking grievers and PGD would be significant for developing strategies to reach grievers who need support.

**Keywords:** bereavement, depression, prolonged grief disorder



## EFFECT OF THE EARLY MENTAL HEALTH INTERVENTION ON TRAUMATIC STRESS, ANXIETY AND DEPRESSIVE SYMPTOMS OF INDIVIDUALS WITH EARTHQUAKE TRAUMA: RANDOMIZED-CONTROLLED DESIGN

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**BACKGROUND AND AIM:** Numerous studies have demonstrated that traumatic events can affect mental health. Therefore, in recent years, there has been a significant effort to develop interventions that can alleviate the effects of psychological trauma and prevent the development of post-traumatic stress disorder (PTSD). However, in mass traumas, it is expected that some of those exposed to trauma will develop mental disorders. In the early stages of such traumas, the general trend and scientific guidelines recommend practices based on Psychological First Aid and Psychoeducation to prevent the development of PTSD and other mental disorders, rather than psychotherapeutic interventions directed at the traumatic event. Acute stress responses resulting from trauma are multidimensional, and early interventions aim to increase resilience, prevent chronic emotional difficulties, and minimize the long-term deterioration in quality of life caused by trauma exposure. Nevertheless, there is a clear need for more effective, protective, preventive interventions that can be applied to larger populations. Additionally, therapeutic interventions in the acute post-traumatic period still raise questions for some clinicians.

A systematic review of 61 studies involving early psychological interventions has shown that Trauma-Focused Cognitive Behavioral Therapy and Eye Movement Desensitization and Reprocessing (EMDR) are effective in reducing acute traumatic stress responses. Thirty-four studies examined individuals showing symptoms of traumatic stress within three months of a traumatic event and demonstrated that these two interventions reduced the severity of PTSD symptoms. Fourteen studies highlighted the importance of early intervention in individuals diagnosed with PTSD or acute stress disorder. Both interventions were effective in the acute phase within 2-4 weeks after the traumatic event, with EMDR being found to have the highest effect size compared to other interventions in the studies conducted.

Recent research on group EMDR protocols for treating traumatic symptoms brought on by natural and human-made disasters, with fewer resources (human and others), has shown that these are beneficial across a wide range of traumatic stress-related symptoms. In particular, the Group EMDR Flash Technique is applied to facilitate the processing of intense traumatic memories that individuals might avoid. This method

allows for the reduction of trauma-related symptoms by focusing on positive memories instead of highly distressing ones. This makes the EMDR Flash Technique application safer to use in acute periods when individuals do not engage with the trauma. Therefore, the effectiveness of the Group EMDR Flash Technique application in early post-traumatic intervention is important for developing a safe and effective intervention for a large number of individuals affected by trauma simultaneously.

In light of all this literature information, the current study aims to examine the therapeutic, protective, and preventive effects of therapeutic intervention in the acute period in individuals affected by earthquakes

**METHODS:** The current study has a randomized controlled design. Announcements were made to reach individuals affected by the 2023 Urfa-Kahramanmaraş-Hatay earthquakes, and 465 volunteers applied for the study. Thirty-three individuals were excluded due to not meeting the inclusion criteria, thirteen due to lack of voluntariness, and nine for various other reasons. Four hundred and ten participants were divided into Group EMDR Flash Technique and Control groups, and the sociodemographic data form, PTSD Checklist for DSM-5 (PCL-5), and Depression Anxiety Stress-21 scale (DASS-21) were administered. The intervention group was invited to participate in the Group EMDR Flash Technique intervention online, but 98 participants were unable to participate for various reasons (change of location, lack of technical facilities, physical inappropriateness, etc.), and 107 participants completed the EMDR Flash Technique sessions administered over three consecutive days. The intervention was conducted by experienced psychotherapists with at least ten years of experience in the field. The intervention was completed within 30 days after the earthquakes. After a three-month follow-up period, the PCL-5 and DASS-21 scales were readministered to the participants. Approval was obtained from the Üsküdar University Non-Interventional Research Ethics Committee (61351342/2023-55).

**RESULTS:** The statistical analyses of the study were conducted with 52 participants from the intervention group and 37 participants from the waiting group who completed the study. No statistically significant differences were found between the intervention and waiting groups in terms of age ( $p=0.414$ ), gender ( $p=0.941$ ), relationship status ( $p=0.099$ ), education level ( $p=0.406$ ), income status ( $p=0.286$ ), employment status ( $p=0.958$ ), physical illness ( $p=0.807$ ), mental illness before the earthquake ( $p=0.389$ ), suicide attempt before the earthquake ( $p=0.165$ ), smoking ( $p=0.198$ ), alcohol use ( $p=0.480$ ), physical injury during the earthquake ( $p=0.165$ ), and loss of first-degree relatives in the earthquake ( $p=0.943$ ). Significant differences were found in the changes in scores between the EMDR Flash Technique group and the waiting group for DASS-21 Depression ( $\eta^2=0.138$ ), Anxiety ( $\eta^2=0.111$ ), Stress ( $\eta^2=0.170$ ), Total ( $\eta^2=0.192$ ), PTSD Checklist Re-experiencing ( $\eta^2=0.256$ ), Avoidance ( $\eta^2=0.164$ ), Negative changes ( $\eta^2=0.239$ ), Hyperarousal ( $\eta^2=0.300$ ), Total ( $\eta^2=0.309$ ). When the cutoff score for the PTSD Checklist was set at  $>47$ , the likelihood of a PTSD diagnosis in the waiting group was 97.3% at 1 month after the first earthquake and 91.9% at 3 months later, while in the Flash Technique group, it was 92.3% at 1 month after the first earthquake and 32.7% at 3 months later.

**CONCLUSIONS:** The most significant finding of the current study is that the application of the EMDR Flash Technique in the early stages, even while aftershocks are ongoing, can provide protective and preventive effects for Trauma and Associated Disorders, as well as for Depressive Disorders and Anxiety Disorders. The trend in the literature was that most interventions in the early period after a traumatic event were not effective. Although there are studies suggesting the opposite, they were proposed more weakly. Contrary to the literature, the current study shows that early interventions prevent the development of future

mental symptoms related to trauma. The results of this study provide strong evidence for the early detection and evaluation of individuals exposed to traumatic events and the provision of early psychological intervention when necessary; however, further research is needed to develop more intervention options.

**Keywords:** EMDR, acute stress, natural disaster, PTSD, early intervention

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## EVALUATION OF PLASMA ATHEROGENIC INDEX, CASTELLI RISK INDEX AND ATHEROGENIC COEFFICIENT IN PATIENTS WITH DEPRESSIVE DISORDER

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**BACKGROUND AND AIM:** There is a robust comorbidity between depressive disorder and cardiovascular disorder. Management of abnormal metabolic parameters is important during the follow-up and treatment of a depressive episode. The atherogenic index of plasma (AIP), Castelli risk index (CII) and atherogenic coefficient (AC) are important atherogenic indices. The aim of this study was to evaluate these atherogenic index parameters in patients with depressive disorder.

**METHODS:** We took an approval from the Local Ethics Committee placed at the Adiyaman (Adiyaman, Turkey) (Approved No: 2023/4-3). The study included 50 depressive disorder patients and 50 controls. included in the study. All participants were analyzed for metabolic profiles including plasma levels of fasting glucose and lipid profiles including total cholesterol, triglycerides, high-density lipoprotein-cholesterol (HDL-C) and low-density lipoprotein-cholesterol (LDL-C). Body mass index (BMI) was calculated. According to the American Heart Association National Heart, Lung, and Blood Institute, atherogenic indices, including the Atherogenic Coefficient (AC), Castelli risk index (CRI)-I, CRI-II, Plasma Atherogenic Index (PAI) were calculated. Chi-square analysis (Pearson Chi-square) was used to compare categorical variables between groups. Compliance of continuous variables with normal distribution was evaluated by Kolmogorov-Smirnov test. Student t test was used for the comparison of paired groups.

**RESULTS:** BMI ( $p < 0.001$ ), glucose ( $p = 0.004$ ), TG ( $p < 0.001$ ), total cholesterol ( $p < 0.001$ ), LDL ( $p = 0.011$ ), AC (LDL+TG)/HDL ( $p = 0.001$ ), CRI-I (TC/HDL) ( $p = 0.017$ ), CRI-II (LDL/HDL) ( $p = 0.047$ ) and AIP ( $\log_{10}$  TG/HDL) ( $p = 0.001$ ) values were significantly higher than the control group. There was no significant difference between the groups in terms of HDL value ( $p = 0.938$ ).

**CONCLUSIONS:** The high atherogenic indices of depressive disorder patients indicate that cardiovascular follow-up is important in this disease. We believe that inexpensive and feasible AIP, CRI-I, CRI-II and AC should be evaluated in large sample groups in this disease. Thus, we do not think that depression will reduce the mortality and morbidity of patients.

**Keywords:** plasma atherogenic index, Castelli risk index, atherogenic coefficient, depressive disorder

## CLINICAL AND SOCIODEMOGRAPHIC CHARACTERISTICS, TREATMENT, AND FOLLOW-UP RESULTS OF PREGNANT PATIENTS IN INPATIENT PSYCHIATRY CLINIC

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**BACKGROUND AND AIM:** This study aimed to present the clinical and sociodemographic data and treatment practices of pregnant patients followed in the psychiatric ward.

**METHODS:** In study, we retrospectively scanned sociodemographic and clinical data related to psychiatric disorders (scales, treatment protocols, suicidal thoughts), characteristics of pregnancy and information regarding birth of 44 pregnant patients treated in inpatient clinic of Zonguldak Bülent Ecevit University Hospital Psychiatric Services due to psychiatric disorders. Ethics committee no: 2022/05 date: 09/03/2022.

**RESULTS:** Of 44 patients, 34.1% (n=15) were followed up with a diagnosis of bipolar affective disorder (BAD). Of all the patients, 15.9% (n=7) received more than one psychiatric diagnosis. While the average length of hospital stay of patients was  $17.86 \pm 6.33$  days, it was  $22.80 \pm 20.43$  days in patients diagnosed with BAD. At the time of admission, 43.2% (n=19) of the patients were in the 3rd trimester. During hospitalization, 31.8% (n=14) of all the patients were actively suicidal. Seventy-five percent of all the patients, and all BAD patients received an antipsychotic treatment (an average dose of antipsychotics equivalent to  $863.33 \pm 577.16$  mg chlorpromazine). While 27% (n=12) of the patients were taking sertraline, 2% (n=1) were on paroxetine. Electroconvulsive Therapy (ECT) was applied to 29% of all the patients (n=13). Of the BAD patients, 80% (n=12) were in complete remission and 20% (n=3) were in partial remission at the time of their discharge.

**CONCLUSIONS:** Pregnancy is a risky period for the onset and recurrence of psychiatric disorders. While the majority of our pregnant patients receiving inpatient treatment for psychiatric disorders were in the third trimester. The majority of BAD patients experienced mood episodes during pregnancy or the postpartum period. The majority of our patients was found to be diagnosed with BAD and needed antipsychotics. The majority of patients who received ECT were pregnant BAD patients.

**Keywords:** antidepressant, antipsychotic, ECT, inpatient treatment, Pregnancy, psychiatric disorder

## CORRELATION OF NEUTROPHIL/LYMPHOCYTE, MONOCYTE/LYMPHOCYTE AND PLATELET/LYMPHOCYTE RATIOS WITH CLINICAL SEVERITY AND TREATMENT IN BIPOLAR DISORDER, A RETROSPECTIVE FOLLOW-UP STUDY

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**BACKGROUND AND AIM:** Although the etiology of bipolar disorder (BD) remains uncertain, recent studies suggest that biochemical factors such as neuroinflammation plays an important role in the etiology and clinical course. The neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), and monocyte-to-lymphocyte ratio (MLR) values are inexpensive and reproducible biomarkers that are related to inflammation, and their association with infection, malignancy, immune system diseases and psychiatric disorders have long been recognized. This study aimed to compare the NLR, MLR, and PLR values of the patients with BD during manic episode and remission period and analyze the relationship between these values and clinical severity rating scales and antipsychotic doses and blood levels of lithium and valproate.

**METHODS:** In our study, 38 patients diagnosed with bipolar disorder who were hospitalized due to manic episode and 40 healthy controls were retrospectively reviewed in terms of sociodemographic data, clinical characteristics (Complete Blood Count, Young Mania Rating Scale, Hamilton Depression Rating Scale, and medications). NLR, MLR, and PLR values in manic episode and in remission were compared. The correlation of NLR, MLR, and PLR values with clinical severity rating scale (YMRS, HAM-D) scores and antipsychotic doses were also examined. The study protocol was approved by local Ethics Committee (approval number: 2024-TBEK 2024/03-03).

**RESULTS:** Dependent Groups t-test showed that N/L ( $t=3,996$ ,  $p<0,001$ ), M/L ( $t=4,788$ ,  $p<0,001$ ) and P/L ( $t=3,392$ ,  $p=0,002$ ) values of manic episode decreased statistically significantly in remission. The blood levels of lithium and valproate were found to have a statistically significant effect on P/L ( $p<0,001$ ) and N/L ( $p=0,040$ ) values in the remission period.

**CONCLUSIONS:** Recently, many studies have been indicated the association between inflammation and psychiatry. NLR, PLR, and MLR values are easily accessible markers of inflammation. Our study is important in terms of examining the effect of treatment and clinical severity on inflammatory processes in bipolar disorder.

**Keywords:** bipolar disorder, inflammation, monocyte/lymphocyte ratio, neutrophil/lymphocyte ratio, platelet/lymphocyte ratio



## INVESTIGATION OF SOCIODEMOGRAPHIC AND CLINICAL DATA OF CHILDREN AND ADOLESCENTS UNDER INPATIENT PSYCHIATRIC TREATMENT

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**BACKGROUND AND AIM:** Inpatient psychiatric treatment plays an important role in the treatment of psychiatric emergencies, psychotic disorders, bipolar and related disorders, suicidal and homicidal thoughts in children and adolescents. This study aims to obtain a holistic perspective on treatment by examining the sociodemographic and clinical characteristics of inpatient children and adolescents.

**METHODS:** In this study, 47 cases who were hospitalized in Selçuk University Faculty of Medicine between February 2019 and February 2024 were evaluated. Data including sociodemographic data, diagnoses, medications, duration of hospitalization, suicidal thoughts, suicide attempts and non-suicidal self-injury (NSSI) were collected through file review. Ethics Committee application made. Application number is 204.

**RESULTS:** Forty-seven children and adolescents aged 11-18 years with a mean age of  $15.48 \pm 1.5$  years were included in the study. 63.8% of the cases were girls and 36.2% were boys. Major Depressive Disorder (17 cases) and Anxiety Disorders (5 cases) were the most common diagnoses. Risperidone (21 cases) and Sertraline (11 cases) were the most commonly used medical treatment. Single, dual and triple medication use was observed in 11, 29 and 7 cases, respectively. Inpatient female cases were significantly younger than male cases ( $p: 0.040$ ). Suicidal thoughts was reported in 23 cases, 17 cases attempted suicide, and 17 cases had NSSI. The suicide attempt rate was significantly higher in the NSSI group ( $p: 0.015$ ).

**CONCLUSIONS:** In this study, sociodemographic and clinical data of children and adolescents receiving inpatient psychiatric treatment were analyzed. The high frequency of suicidal ideation, suicide attempt and non-suicidal self-injury is an important finding for our study. In addition, the fact that the rate of suicide attempts was higher in the group with self-injurious behavior revealed the need for closer follow-up of this group of cases. The generalizability of this study may be limited. Long-term follow-up studies may mediate more comprehensive approaches to address suicidal thoughts, suicidal attempts and NSSI.

**Keywords:** inpatient psychiatric treatment, suicidal thoughts, non suicidal self injury, suicide attempt

## EXPLORING THE RELATIONSHIP BETWEEN ACADEMIC PROCRASTINATION, RUMINATIVE THINKING, AND ACADEMIC PERFECTIONISM AMONG UNIVERSITY STUDENTS

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**BACKGROUND AND AIM:** Procrastination, which is defined as the tendency to leave tasks or decisions to be made for a later time, appears in the academic context as an individual's failure to perform academic tasks on time. Academic procrastination has been associated with low academic achievement and adverse mental health outcomes. Several concepts related to academic procrastination have been discussed in the literature. The present study aims to explore the relationship between academic procrastination, ruminative thinking, and academic perfectionism among university students.

**METHODS:** A cross-sectional design utilizing an online questionnaire was employed to examine the study variables of interest. The study included university students aged 18 and above, excluding those with comorbid mental illnesses or cognitive impairments severe enough to hinder participation. The questionnaire was distributed through a freely available instant messaging application. Respondents ( $n = 100$ , 56.0% female) completed the Tuckman Procrastination Scale (TPS), the Ruminative Thought Style Questionnaire (RTSQ), and the Academic Perfectionism Scale (APS). Permission was obtained from the Toros University Scientific Research and Publication Ethics Committee to conduct this study (Approval no: 2023/112).

**RESULTS:** A significant positive correlation was observed between RTSQ and APS scores ( $r = 0.439$ ,  $p < 0.001$ ). Similarly, there was a positive relationship between RTSQ and TPS scores ( $r = 0.358$ ,  $p < 0.001$ ). However, the correlation between TPS and APS scores did not reach statistical significance ( $r = 0.124$ ,  $p = 0.218$ ).

**CONCLUSIONS:** The current findings underscore that ruminative thinking, associated with academic perfectionism, is positively related to academic procrastination. Interventions for ruminative thinking may play an important role in preventing academic procrastination and its possible consequences.

**Keywords:** academic procrastination, perfectionism, ruminative thinking

## EFFECTIVENESS AND TOLERABILITY OF ACCELERATED TRANSCRANIAL MAGNETIC STIMULATION IN PATIENTS WITH TREATMENT-RESISTANT DEPRESSION: A RETROSPECTIVE STUDY

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**BACKGROUND AND AIM:** In 2008, the Food & Drug Administration approved transcranial magnetic stimulation (TMS) for treatment-resistant depression (TRD). Standard TMS protocols recommend 30–40 sessions of TMS for TRD. Attempted and completed suicide rates are high in TRD. Therefore, there is a need for TMS protocols with a faster onset of effect. In this direction, TMS protocols that are applied more than once per day have been developed, called accelerated transcranial magnetic stimulation (aTMS). In our study, we aim to investigate the effectiveness and tolerability of aTMS in patients with TRD.

**METHODS:** We retrospectively investigated the files of TDR patients who underwent aTMS between December 2022 and February 2024. The study was completed on a total of 15 files of patients. We presented the patients' sociodemographic and aTMS data as descriptive statistics. We accepted the treatment response as at least a 50% reduction on scales. Our study received approval from the non-invasive ethics committee of Atatürk University Faculty of Medicine (date: 21.02.2024 decision number: 101)

**RESULTS:** The mean age of the patients was  $39.73 \pm 14.69$  years (age range: 21–67 years). Most patients were 66.7% (n = 10) female. While the mean number of daily TMS sessions was  $4.46 \pm 1.50$ , the total number was  $40.60 \pm 16.08$  (range: 20–80). Almost all patients underwent the Intermittent theta burst stimulation (iTBS) and continuous theta burst stimulation (cTBS) (86.7%, n = 13). The mean Hamilton Depression Rating Scale score of the patients before aTMS was  $24.46 \pm 6.37$ , and the mean Montgomery–Åsberg Depression Rating Scale score was  $35.13 \pm 7.58$ . The response rate after aTMS was 86.7% (n = 13). Only one patient who underwent aTMS reported headache as a severe side effect.

**CONCLUSIONS:** aTMS has rapid effectiveness and tolerability in patients with TRD. However, aTMS has no standard protocols, and it is still unclear how long its effect lasts.

**Keywords:** accelerated transcranial magnetic stimulation, treatment-resistant depression, effectiveness, tolerability

## SOCIODEMOGRAPHIC AND CLINICAL EVALUATION OF SUBSTANCE-INDUCED PSYCHOSIS PATIENTS HOSPITALIZED IN A TRAINING AND RESEARCH HOSPITAL

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**BACKGROUND AND AIM:** This study aims to identify socio-demographic risk markers and clinical characteristics of patients with substance-induced psychosis (SIP), in response to its rising trend and far-reaching social and legal implications. The findings will help tailor more effective treatment modalities.

**METHODS:** Hospital records of 294 patients diagnosed with SIP at S.B.Ü. Bursa Yüksek İhtisas Training and Research Hospital from January 1, 2023, to January 1, 2024, were retrospectively examined. Descriptive analyses were performed utilizing IBM SPSS 26.0 including Chi-Square and Pearson/Spearman Correlation Analyses with a significance level set at  $p < 0.05$ . The study protocol was approved by local Ethics Committee (approval number: 2024-TBEK 2024/03-06).

**RESULTS:** The study revealed a notable male predominance in substance-induced psychosis cases, constituting 91.1% of the total. Educational attainment varied, with 22.5% having primary education or less, 45.4% completing middle school, 28.3% finishing high school, and 3.8% holding a university degree. A variety of substances were implicated in inducement of psychosis: 58.4% of cases involved cannabis, 43.3% involved synthetic substances, 94.5% involved methamphetamine, 2.7% involved cocaine, 10.6% involved ecstasy, 3.8% involved volatile substances, 1.4% involved heroin, and 2.7% involved other substances. Legal proceedings led to compulsory hospitalization in 43% of cases. Suicide attempts were noted in 17.1%, and 7.8% had prior electroconvulsive therapy. Discharge medications were primarily atypical antipsychotics, used by 75.8% of patients, with olanzapine being the most common at 50.2%. Typical antipsychotics were beneficial for 14.7% of patients, with haloperidol being the primary drug for 13.7%. Clozapine was effective for 1.4% of patients. Depot antipsychotic agents were administered in 22.9% of cases, predominantly employing once-monthly paliperidone palmitate injection at 16%.

**CONCLUSIONS:** Given the connection between substance use and legal involvement, integrated care combining social and medical disciplines is essential for effective SIP management. Prioritizing personalized medication and continuous monitoring can enhance psychiatric care, potentially preventing SIP from evolving into chronic psychotic disorders.

**Keywords:** antipsychotic agents, legal, methamphetamine, sociodemographic, substance-induced psychosis

## EVALUATION OF GOOGLE AND YOUTUBE SEARCHES RELATED TO CLUSTER B PERSONALITY DISORDERS

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**BACKGROUND AND AIM:** In recent years, the ease of access to the internet has led to an increase in searches on Google and YouTube platforms regarding both psychiatric illnesses and other medical conditions. This study aimed to evaluate internet searches related to Cluster B personality disorders using Google Trends.

**METHODS:** Since this study was conducted using freely accessible data on the internet, ethical approval was not deemed necessary. Our study had a cross-sectional design, and on March 18, 2024, the terms 'Borderline personality disorder', 'Antisocial personality disorder', 'Narcissistic personality disorder', and 'Histrionic personality disorder' were searched on trends.google.com, and their Google and YouTube search volumes for the past year were recorded. The same search was performed for both Turkey and the world, and in addition, the number of research articles related to these disorders was recorded on Google Scholar.

**RESULTS:** The results of the study showed that among Cluster B personality disorders, the most frequently searched terms in Turkey were Borderline Personality Disorder and Histrionic Personality Disorder, while worldwide, they were Borderline Personality Disorder and Narcissistic Personality Disorder, respectively. According to YouTube searches, Narcissistic Personality Disorder was the most frequently searched personality disorder both worldwide and in Turkey. After searching on Google Scholar, it was observed that the most research was related to Antisocial Personality Disorder.

**CONCLUSIONS:** This study has revealed the difference between academic interest and public interest on personality disorders. While public interest focuses on the more prevalent Borderline Personality Disorder, academic interest focuses on Antisocial Personality Disorder, which is known to have a greater impact on functionality and is relatively riskier in terms of social events. The prominence of Narcissistic Personality Disorder in YouTube searches may be related to the increased coverage of this disorder on social media and health channels.

**Keywords:** Google trends, internet search, personality disorder

## CONTEXTUAL AND SITUATIONAL FACTORS DISTINGUISHING TURKISH AND RUSSIAN HOMICIDE PERPETRATORS WITH PSYCHOTIC ILLNESS: A MULTINATIONAL STUDY

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**BACKGROUND AND AIM:** To date, very few studies have explored the characteristics of forensic psychiatric samples using cross-country comparisons, with most conducted among European countries. These comparative studies generally focused on the general characteristics of offender patients rather than the specifics of their violence. Indeed, none of the studies exclusively examined homicidal patients or they compared countries with similar sociocultural features and mental health care service development. Research into the descriptive characteristics of homicides and perpetrators with psychotic disorders is often limited by specific geographic regions, limiting their broader applicability. Comparing patients with psychosis who commit homicide across countries would provide valuable insights for forensic psychiatry practitioners, aiding in understanding clinical and forensic characteristics and sharing best practices.

Turkiye and Russia share commonalities in traditional values and a blend of Eastern and Western cultural influences, but differ notably in social welfare systems, mental health care provisions, legal frameworks, crime rates, and socioeconomic profiles. These factors may collectively shape the characteristics of patients with psychotic illnesses who commit homicide in these countries. Our study compares Turkish and Russian homicidal offenders with psychosis, aiming to identify similarities and differences in background, contextual features, and illness-specific characteristics. This research would contribute to the broader international understanding of this patient population.

**METHODS:** This cross-national, retrospective study was conducted at two specialized forensic psychiatric centers: one in Bakirkoy, Istanbul, Turkiye, and the other in Cheboksary, Chuvash Republic, Russian Federation. These centers provide specialist ambulatory and inpatient services for forensic psychiatric evaluations within their respective catchment areas (with a population of 27 million for Bakirkoy and 1.4 million for Cheboksary), catering to requests from criminal courts or public prosecutors when there is suspicion of a mental disorder at the time of the offense. The sample comprised individuals with psychotic illnesses considered criminally not responsible for their index homicide offenses, admitted to these units over a 10-year period. Inclusion criteria required a conclusive diagnosis within the F20-F29 category according to the ICD-10, established or confirmed during forensic psychiatric examinations.

The study included 92 patients from Turkiye and 29 from Russia. Authors reviewed records using a semi-structured form to document sociodemographic, historical, clinical, and forensic data from electronic and written sources. Specific details of each homicidal act were meticulously documented for statistical comparisons. The study was approved by the Scientific Research Ethics Committee of the University of Health Sciences Hamidiye [IRB Approval date: January 13, 2023 – Number: 23/2]. After comparing descriptive data, we used multivariate logistic regression to build three models (background characteristics, homicide-related factors, and a combination of both). These models

included factors that differed significantly between the groups in the bivariate analysis, with Russian group membership as the dependent variable.

**RESULTS:** Table shows detailed characteristics of the study sample, along with their comparative analysis between the two groups. The sample included 121 homicide offenders from Türkiye and Russia, with a mean age of  $40.1 \pm 10.6$  years at the time of the index homicide. Most were male (84.3%), and schizophrenia was the predominant diagnosis (68.6%). Russian subjects had higher education levels, more prevalent lifetime suicide attempts, and a longer duration of illness until the homicidal act. Parents were the most frequent victims of homicides among both Turkish and Russian perpetrators. A notable disparity emerged when acquaintances (vs. others) were identified as victims, with a significantly higher frequency observed within the Russian sample compared to the Turkish sample. Use of sharp instruments was the most frequent method of homicide in both Turkish and Russian groups. Blunt traumatic homicides (vs. others) were significantly more frequently seen in the Russian sample compared to the Turkish counterparts. Intoxication with alcohol or substances at the time of the offense was more frequent in the Russian sample, while experiencing delusions at the time of the offense was more frequent in the Turkish sample.

Three significant models were developed through multivariate logistic regression, including potential factors that differed significantly between the groups in bivariate analyses as independent variables. The third model, which incorporated both background (Model 1) and homicide-related (Model 2) characteristics, was the strongest, explaining 75% of the variability in the dependent variable. It found that higher education in years (OR 1.51 [95%CI, 1.16–1.97]), a lifetime suicide attempt (OR 6.78 [95%CI, 1.23–37.48]), intoxication at the time of the homicide (OR 21.55 [95%CI, 3.91–118.73]), and absence of delusions at the time of the offense (OR 0.17 [95%CI, 0.03–1.00]) predicted belonging to the Russian group.

**CONCLUSIONS:** This study is the first to describe and compare homicide cases involving individuals with psychotic illnesses in two international samples. The results revealed similarities among homicidal patients in Türkiye and Russia, but also differences, such as higher education levels, more frequent suicide attempts, higher prevalence of intoxication, and lower rates of experiencing delusions at the time of the offense among Russian subjects.

The higher education level among Russian offenders compared to their Turkish counterparts may reflect differences in educational systems, social support structures, and mental health resource access. The incidence of suicide was approximately seven times higher among Russian offenders than their Turkish counterparts in this study, possibly due to high overall suicide rates of Russia. There is substantial evidence linking alcohol consumption to high homicide rates in Russia, which supports the more than 21-fold increase in the presence of intoxication at the time of the offense among Russian offenders. The difference in experiencing delusions at the time of the homicide may be due to the complex interplay of psychopathological features with social and cultural norms.

The study provides insights into cultural, demographic, legal, and environmental determinants as contextual and situational factors that shape this patient population and the context of homicidal offending. These insights can enhance forensic psychiatric expertise and mental health policies, aiding in tailored risk assessment and the development of prevention strategies adapted to country-specific features. Our findings suggest that similar comparative studies across diverse sociocultural contexts in the future will be valuable.

**Keywords:** criminal responsibility, forensic psychiatry, homicide, offending, psychosis, schizophrenia

## AN IMPORTANT STEP IN SEPARATING FROM MOTHER: KINDERGARTEN

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**BACKGROUND AND AIM:** Separation anxiety disorder (SAD) is defined as the distress caused by separation from home or close attachment figures. This study aimed to compare the clinical data of children with SAD and healthy controls (HC), as well as to examine the relationship between past kindergarten history and SAD.

**METHODS:** This cross-sectional study included 26 SAD patients who applied to the outpatient clinic of a university hospital for the first time and 27 healthy children without any psychiatric diagnosis. Sociodemographic data and Separation Anxiety Assessment Scale-Parent Form (SAAS-P) scores were recorded. The study was approved by the local ethics committee (2023/735).

**RESULTS:** Of the 26 children diagnosed with SAD, 12 were boys, 14 were girls. In the HC group, 17 were boys and 10 were girls. The median age was 72 (60-84) months for two groups. There was no significant difference between the two groups in terms of gender, number of siblings, parental togetherness status, and family type. There was a significant difference between the groups in terms of having attended kindergarten in the past ( $p=0.008$ ). While 42.3% of children with SAD had gone to kindergarten in the past, this rate was found to be 77.8% in the HC group. When all children were included, SAAS-P scores of children who had previously attended kindergarten were significantly lower than those who had not attended kindergarten ( $p=0.000$ ). Similarly, 'fear of being alone' and 'fear of abandonment' scores, which are subtests of SAAS-P, were significantly lower in HCs than in children with SAD ( $p=0.005$ ,  $p=0.000$ , respectively).

**CONCLUSIONS:** Having a history of attending kindergarten may be an important protective factor for the development of SAD. Considering that kindergarten is an important step for separation from the caregiver, it is valuable to direct children to kindergarten in the early period.

**Keywords:** separation anxiety disorder, kindergarten, protective



## THE PSYCHOLOGICAL BURDEN OF EPILEPSY: EXPLORING THE RELATIONSHIPS BETWEEN STIGMA, OVERPROTECTIVENESS, AND SUICIDE IN EPILEPSY

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**BACKGROUND AND AIM:** Epilepsy is one of the most common neurological disease defined as unprovoked generalized seizures of the brain. Previous studies indicated that 75.2% of patients with epilepsy (PWE) have comorbid psychiatric disorders such as depression and are frequently subjected to high levels of stigma and overprotective behavior. In this article, we aim to explore the correlation between stigma, overprotective behavior, and suicide ideation among epilepsy patients.

**METHODS:** Seventy-five patients participated in this study who were being followed in the Epilepsy Outpatient Clinic at the Neurology Department in Sancaktepe Ilhan Varank Training and Research Hospital. The patients who came to their follow-up visits who were above 18 years of age and literate were chosen to participate in this study and were given a Sociodemographic Data Form, Felt Stigma Scale, Overprotection Scale, Beck Depression Inventory, and Suicide Probability Scale. This study was approved by the Ethics Committee of Sancaktepe Ilhan Varank Hospital on November 10, 2023(2023/228).

**RESULTS:** Pearson Correlation Analysis has found a statistically significant correlation between stigma and overprotection ( $r=0,432$ ,  $p<0,001$ ), suicide probability and stigma ( $r=0,444$ ,  $p<0,001$ ) also between suicide and overprotection ( $r=0,251$ ,  $p=0,032$ ). According to the Hierarchical Linear Regression Analysis, it was found that suicide probability scores were explained by the total scores of the Epilepsy Stigma Scale ( $F=17,43$ ,  $p<0,001$ ). After adding overprotection scores in this model it was seen that overprotection and stigma were predictors of suicide probability ( $F=8,83$ ,  $p<0,001$ ). When all three variables are added to the equation only Beck Depression Scores are statistically significant in predicting suicide probability ( $p<0,001$ , GA: 0,532-,927).

**CONCLUSIONS:** Individuals with epilepsy are at risk of stigma and overprotection, leading to depression and an increased suicide risk. To prevent suicide in PWE, identifying and effectively treating depression also managing the predictors of depression have critical importance in clinical practice.

**Keywords:** epilepsy, stigmatization, overprotective behavior, depression, suicide probability

## USING ANTIDEPRESSANTS AND MOOD STABILIZERS IN PATIENTS DIAGNOSED WITH SCHIZOPHRENIA AND SCHIZOAFFECTIVE DISORDER AT A PSYCHIATRY CLINIC

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**BACKGROUND AND AIM:** Schizophrenia and related psychotic disorders cause significant disability worldwide. While antipsychotics are the main treatment, other medications like antidepressants and mood stabilizers (MS) are commonly used due to comorbid psychiatric conditions. Our study focuses on the use of these medications in follow-up patients with schizophrenia and schizoaffective disorder at our psychiatric clinic.

**METHODS:** The study involved patients diagnosed with schizophrenia and schizoaffective disorder who attended routine follow-up appointments at the Psychotic Disorders Outpatient Clinic between 01.06.2018-01.03.2024. Their diagnoses, medications, sociodemographic data, and overall clinical status were assessed using the "Psychotic Disorders-Treatment Follow-up Protocol" and extracted from the hospital database. Ethical approval was obtained from the local ethics committee.

**RESULTS:** The screening included 187 patients, of whom 87.2% were diagnosed with schizophrenia (n: 163) and 12.8% schizoaffective disorder (n: 24). Among the patients, 36.9% were female (n: 69), and 63.1% were male (n: 118). The mean age was  $44.8\pm 13.29$  years, ranging from 18-76 years. Descriptive statistics showed that 20.3% of the patients (n: 38) were using MS, with valproic acid (n: 28), lithium (n: 7), lamotrigine (n: 2), lithium+valproate (n: 1). Additionally, 40.6% of the patients (n: 76) were using antidepressants, with escitalopram (n: 19), fluoxetine (n: 17), sertraline (n: 13), and others. Among MS users, 50% (n: 15) used it for treatment augmentation, 26.7% (n: 8) for behavioral problems, and 20% (n: 6) for mood stabilization, while 1 patient used lithium due to lymphopenia. Reasons for antidepressant use included depressive symptoms (n: 21), anxiety symptoms(n: 17), and negative symptoms(n: 14), among others like obsessive compulsive disorder, hypersalivation, and sleep problems.

**CONCLUSIONS:** When examining the rates of MS and antidepressant use among patients diagnosed with schizophrenia and schizoaffective disorder in the literature, they were found to be similar to those in our clinic. We emphasize the importance of monitoring patients diagnosed with schizophrenia and schizoaffective disorder for additional psychiatric comorbidities and mood episodes, and initiating treatment when necessary. More meaningful data would require large-sample, longitudinal studies.

**Keywords:** schizophrenia, antidepressant, mood stabilizer, psychotic disorders

## SOCIODEMOGRAPHIC & CLINICAL FACTORS IN PSYCHIATRIC CONSULTS: SUICIDAL THOUGHTS & BEHAVIORS

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**BACKGROUND AND AIM:** Assessing the risk of suicide is crucial among the patients who are hospitalized into internal medicine and surgical departments in general hospitals. This study aims to examine the sociodemographic and clinical characteristics of inpatients for whom requested psychiatric consultation at a university hospital and to evaluate the relationship of these characteristics with suicidal thoughts and behaviors.

**METHODS:** Participants consisted of patients hospitalized in the clinics of İzmir Kâtip Çelebi University Atatürk Training and Research Hospital and requested psychiatric consultation between February 15, 2024, and March 15, 2024. These patients were administered a sociodemographic form, the Hospital Anxiety and Depression Scale (HADS), and the MINI Suicidal Module. Ethical approval for this study was obtained from the same hospital's Ethics Committee (2024-GOKAE-0146)

**RESULTS:** Out of 126 patients evaluated in the consultation, 38 patients were excluded, due to diagnoses of delirium and could not be examined, and 8 were excluded due to consulting for administrative purposes. The remaining 80 patients had an average age of  $56.89 \pm 17.9$ . Twenty patients (25.0%) had metabolic-internal-cardiac disease, 21 (26.3%) were hospitalized for surgical operations, 16 (20.0%) had cancer, 8 (10%) had infectious diseases, 7 (8.8%) had neurological diseases, and 8 (10%) were hospitalized for other diagnoses. Patients who has surgical operations and those with metabolic-internal-cardiac diseases ( $p < 0.05$ ), as well as patients diagnosed with stress and adjustment disorders and depressive disorders as a preliminary diagnosis ( $p < 0.05$ ), were found to have a significantly higher risk of suicide compared to other diagnostic groups. In stepwise regression analysis, HADS-Depression score ( $\beta = 0.31$ ,  $t = 2.877$ ,  $p < 0.05$ ), physical diagnosis ( $\beta = 0.27$ ,  $t = 2.640$ ,  $p < 0.05$ ), and psychiatric diagnosis ( $\beta = 0.24$ ,  $t = 2.238$ ,  $p < 0.05$ ) were found to be predictors of suicide risk.

**CONCLUSIONS:** In psychiatric consultations in general hospitals, the type of psychiatric and physical diagnosis of the patient and the severity of existing depression emerge as predictive factors in assessing the risk of suicide.

**Keywords:** anxiety, depression, suicide

## KNOWLEDGE AND ATTITUDES ABOUT TRANSCRANIAL MAGNETIC STIMULATION AMONG PSYCHIATR RESIDENTS IN TURKEY

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**BACKGROUND AND AIM:** Repetitive transcranial magnetic stimulation (rTMS) is a noninvasive brain stimulation treatment. rTMS has been approved by the FDA for unipolar depression and obsessive compulsive disorder. Many mental health institutions worldwide use rTMS to treat mental disorders. In our study, we aim to evaluate the knowledge and attitudes of psychiatry residents in Turkey about rTMS.

**METHODS:** Online data was collected for the study, between 21.02.2024-21.03.2024. Psychiatry residents were reached through WhatsApp groups containing psychiatry residents. Participants responses were analyzed using the SPSS program. Our study received approval from the non-invasive ethics committee of Atatürk University Faculty of Medicine (Date: 21.02.2024, Decision Number: B.30.2.ATA.0.01.00/07)

**RESULTS:** 110 psychiatry residents were reached from 26 different cities. 57.3% ( $n = 63$ ) of participants were female, and most participants, 74.5% ( $n = 82$ ), were between 24 and 30 years of age. More than half of the participants (63.6%,  $n = 70$ ) did not have a TMS device in their institution. The rate of psychiatry residents who said they had enough knowledge about TMS was very low, 10% ( $n = 11$ ). Among the knowledge questions about TMS, the questions that participants made the most mistakes were questions about the FDA approval of TMS. 46.4% ( $n = 51$ ) of participants incorrectly reported that rTMS was FDA-approved for bipolar affective disorder, and 30.9% ( $n = 34$ ) incorrectly reported that rTMS was FDA-approved for schizophrenia. The most correct question was the item stating that there is no need for general anesthesia for rTMS (97.3%,  $n = 107$ ). Participants had positive attitudes towards rTMS. Seventy percent ( $n = 70$ ) stated that they could recommend rTMS treatment to their patients, and 80.9 percent ( $n = 89$ ) stated that the rTMS device should be available in all psychiatric clinics.

**CONCLUSIONS:** In the literature review, it was observed that studies on the approach to rTMS were conducted in various countries and similar results were obtained. Most of the psychiatry residents has a good knowledge and a positive attitude toward rTMS in Turkey.

**Keywords:** transcranial magnetic stimulation, psychiatrists, knowledge, attitude, Turkey

## THE RELATIONSHIP BETWEEN DEPRESSION-RELATED KNOWLEDGE AND ATTITUDES OF MEDICAL FACULTY STUDENTS AND STIGMA LEVEL

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**BACKGROUND AND AIM:** The aim of this study was to determine the level of knowledge of medical students about depression and to determine the relationship between this situation and stigmatization.

**METHODS:** Students of the medical faculty that formed the sample group were informed about the study and signed for a voluntary form from the participants. The SPSS program was used for statistical analysis. Approval for this study was obtained from Eskişehir Osmangazi University Non-Interventional Clinical Research Ethics Committee dated 21.03.2023, decision number 05.

**RESULTS:** 125 participants were included in the study. A significant negative correlation was found between the Attitudes Towards Seeking Psychological Help Scale (ATSPHS) and the Stigma Scale (SS) ( $p < 0.05$ ). A significant positive correlation was found between the ATSPHS and Depression Knowledge Multiple Choice Test (DKMCT) ( $p < 0.01$ ).

A significant negative correlation was found between ATSPHS and SS for participants who received psychiatry internship ( $p < 0.05$ ). A significant positive correlation was found between ATSPHS and DKMCT for participants who received psychiatry internship ( $p < 0.01$ ).

For participants without a psychiatric diagnosis, a significant negative correlation was found between the ATSPHS and the SS ( $p < 0.05$ ). For participants without psychiatric diagnosis, a significant positive correlation was found between the ATSPHS and DKMCT ( $p < 0.05$ ). There was no significant difference in SS scores between participants who did not receive psychiatry internship and participants who received psychiatry internship ( $p = 0.85$ ). In terms of DKMCT scores, participants who received psychiatry internship showed a significant difference ( $p < 0.00$ ) compared to participants who did not receive psychiatry internship. There was no significant difference in ATSPHS scores ( $P = 0.19$ ).

**CONCLUSIONS:** Our findings indicate that the education given in psychiatry internship increases students' knowledge of depression. However, improving the attention given to attitudes towards counseling and stigmatization in psychiatry internship may contribute to reducing stigmatization and overcoming the barriers in applying for psychological counseling.

**Keywords:** depression, medical students, stigmatization

## THE PREVALENCE OF NIGHT EATING SYNDROME AND ITS RELATIONSHIP WITH ADHD IN PRECLINICAL MEDICAL STUDENTS

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**BACKGROUND AND AIM:** In our study, we aimed to investigate the frequency of night eating syndrome (NES) in preclinic medical school students and its relationship with attention deficit hyperactivity disorder (ADHD).

**METHODS:** In present study, 250 preclinical medical school students were included. 21 students were excluded from the study because they could not complete the survey. The exclusion criteria for the research are as follows: being under 18 or over 30 years of age, using medical drugs that may cause weight gain, having a diagnosis of schizophrenia or bipolar disorder, using sedative drugs for any reason, using psychotropic drugs in the last 3 months, and working in a shift-based job. The participants were requested to fill Night Eating Questionnaire (NEQ), Adult Attention Deficit Hyperactivity Rating Scale (ASRS). The necessary ethical approvals for the study were obtained from the Necmettin Erbakan University Ethics Committee (IRB= 01/03/2024-193).

**RESULTS:** Probable NES diagnosis was determined in 65 (28%) out of 229 students according to the Night Eating Questionnaire (NEQ). The ASRS inattention subscale of probable NES group ( $M = 17.88$ ,  $SD = 4.90$ ) were significantly higher compared to the control group ( $M = 14.79$ ,  $SD = 5.60$ ) ( $p < 0.001$ ). Similarly, the ASRS hyperactivity subscale of probable ADHD group ( $M = 17.22$ ,  $SD = 4.70$ ) were significantly higher compared to the control group ( $M = 14.40$ ,  $SD = 4.91$ ) ( $p < 0.001$ ). Additionally, the ASRS total score of probable ADHD group ( $M = 34.96$ ,  $SD = 8.35$ ) were significantly higher compared to the control group ( $M = 29.16$ ,  $SD = 9.42$ ) ( $p < 0.001$ ). A significant positive correlation was found between NEQ scores and the ASRS inattention subscale, ASRS hyperactivity subscale, and ASRS total scores ( $r = 0.38$ ,  $r = 0.37$ ,  $r = 0.42$ , respectively).

**CONCLUSIONS:** The results of current study draw attention to the noteworthy prevalence of NES among preclinical medical students. Additionally, our results suggest that the impulsive eating behavior present in NES may be partially explained by ADHD symptomatology. Larger sample size and studies involving patient groups are needed to confirm our findings.

**Keywords:** NES, ADHD, medical student, inattention, hyperactivity



## IS THE PERCEPTION OF TIME RELATED WITH SEVERITY OF DISORDER, METACOGNITIONS AND DEPRESSIVE SYMPTOMS IN SCHIZOPHRENIA?

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**BACKGROUND AND AIM:** Time perception, influenced by psychological and physiological factors, is crucial for understanding events. Schizophrenia patients exhibit impaired time perception, influenced by cognitive deficits and disease symptoms. Dopamine agonists accelerate the internal clock, while antagonists slow it down, impacting time perception. Recent studies show conflicting results regarding time estimation and production in schizophrenia. Our study aimed to explore how time perception relates to depressive symptoms, metacognitive functions, and disease symptoms in schizophrenia patients, neglecting the impact of comorbid conditions.

**METHODS:** Conducted between 1/2/2023 and 1/2/2024, our study involved schizophrenia patients aged 18 and above, alongside a control group. We utilized the Metacognitions Questionnaire-30, Calgary Depression Scale, Positive and Negative Symptoms Scale (PANSS), and a custom-designed computer program for time perception tasks. Ethics approval was obtained from Erenköy Mental and Neurological Diseases Training and Research Hospital.

**RESULTS:** Fifty-two schizophrenia patients and fifty healthy controls participated, with no significant group differences in gender, birthplace, residence, medical history, or substance use ( $p>0.05$ ). However, age and education level significantly varied ( $p<0.05$ ). Schizophrenia patients consistently estimated longer durations than controls but produced shorter durations in 14 and 27-second tasks. Correlation analyses between depression, metacognition, and PANSS scores showed no significant results.

**CONCLUSIONS:** Our study's findings align with existing literature regarding time perception tasks in schizophrenia patients. Attention difficulties inherent in schizophrenia may have contributed to the lack of significant results in time production tasks, likely due to decreased patient attention levels. The absence of significant correlations with depressive symptoms and metacognition suggests that time perception impairment in schizophrenia is influenced by various independent factors. Identifying these factors could be crucial for improving diagnostic and treatment monitoring. Overall, understanding time perception in schizophrenia remains unclear, necessitating further research for elucidation.

**Keywords:** schizophrenia, time perception, metacognition, depression in schizophrenia

## PHUBBING, SMARTPHONE ADDICTION, SOCIAL MEDIA ADDICTION, AND EXPERIENTIAL AVOIDANCE IN HEALTHCARE WORKERS

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**BACKGROUND AND AIM:** Phubbing is a combination of the words “phone” and “snubbing,” and it is defined as ignoring other individuals by using a mobile phone during a face-to-face conversation. In our study, we aim to investigate phubbing, smartphone addiction, social media addiction, and experiential avoidance in healthcare workers (HCWs).

**METHODS:** HCWs at Erzurum City Hospital were included in the study between January 2024 and February 2024. All participants completed the sociodemographic data form, Phubbing Scale (PS-10), Smartphone Addiction Scale-Short Form (SAS-SF), Bergen Social Media Addiction Scale (BSMAS), Fear of Missing Out on Social Media Scale (FOMO-SM), Depression-Anxiety-Stress Scale-21 (DASS-21), and Multidimensional Experiential Avoidance Questionnaire-30 (MEAQ-30). Our study received approval from the non-invasive ethics committee of the University of Health Sciences, Erzurum Faculty of Medicine (date: 13.12.2023, decision number: 2023/08-100).

**RESULTS:** The study was completed with 155 HCWs. Of the participants, 56.12% ( $n=87$ ) were female and 43.87% ( $n=68$ ) were male. The mean age of the participants was  $32.01\pm 7.41$  years. The participants' mean number of social media networks was  $3.28\pm 1.23$ . 43% of the participants ( $n=66$ ) used social media for 2-4 hours on weekdays, and 49.3% ( $n=76$ ) for 2-4 hours on weekends. There was a negative correlation between PS-10 and age ( $r=-0.19$ ,  $p<0.05$ ). We found a positive correlation between PS-10 and SAS-SF ( $r=0.61$ ,  $p<0.01$ ), BSMS ( $r=0.54$ ,  $p<0.01$ ), FOMO-SM ( $r=0.39$ ,  $p<0.01$ ), DASS-21 ( $r=0.29$ ,  $p<0.01$ ), and MEAQ-30 ( $r=0.23$ ,  $p<0.01$ ), respectively.

**CONCLUSIONS:** For the first time, we examined phubbing, smartphone addiction, social media addiction, and experiential avoidance in HCWs. Phubbing is most associated with smartphone and social media addiction among HCWs. Future studies about phubbing with more detailed analyses are needed in HCWs.

**Keywords:** experiential avoidance, healthcare workers, phubbing, smartphone addiction, social media addiction

## ASSESSMENT OF HIF1-ALPHA AND HIF1-ASSOCIATED MIRNA LEVELS IN PATIENTS WITH BIPOLAR DISORDER AND ATTENTION-DEFICIT HYPERACTIVITY DISORDER

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**BACKGROUND AND AIM:** Bipolar Disorder (BD) is a chronic disorder characterized by mood fluctuations, behavioral disorders, cognitive disorders, and irregularities in circadian rhythms, with recurrent depressive/hypomanic/manic episodes. Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder, which is characterised by deficit in attention, hyperactivity, and impulsivity. ADHD and BD are disorders known to play a role in the pathogenesis of gene-environment interactions. Many etiological factors have been described for these disorders so far; it has been determined that there may be overlapping environmental and genetic causes for both disorders. According to the data obtained from the studies; common points where both meet; prenatal and perinatal processes such as substance use disorder during pregnancy, maternal stress, preterm birth, low birth weight, obstetric complications and early traumatic life events. Exposure to environmental factors in the neurodevelopmental process changes the molecular processes in the brain regions, affects the genetics of the cells, and in this way can cause psychiatric diseases. One of the risk factors is hypoxia. It has been reported that deficiencies in perinatal oxygenation may cause damage to synaptogenesis, neurogenesis and myelination, and dopaminergic-glutamergic dysfunction, may affect oligodendrocyte and astrocyte functions, trigger microglia activation. Until today, the relationship of many psychiatric diseases with perinatal hypoxia-ischemia has been investigated. The most prominent results were obtained in schizophrenia, intellectual disability, autism spectrum disorders, ADHD and BD.

It has been discovered that hypoxia is mainly responded to at the cellular level by Hypoxia-inducible factors(HIFs). HIF mediates the systemic consequences of an environmental factor such as hypoxia by interacting with genes starting from the neurodevelopmental stage. HIFs protect neurons from cell death caused by hypoxia, but it is thought that they may disrupt adaptation to environmental conditions in the long term, which may predispose them to psychiatric diseases depending on the areas in the brain they affect. Research shows that cell destruction can be triggered in conditions where the transition between HIFs is not carried out properly and high HIF1 levels exist for a long time. For this reason, its role in psychiatric diseases has begun to attract attention but has not been adequately researched.

MicroRNAs(miRNAs) are one of the epigenetic regulatory mechanisms and are small non-protein-coding RNAs. It is known that the expression level of many miRNAs changes in response to hypoxic conditions. It has been determined that some of them play a role in the regulation of HIFs, which play a fundamental role in adaptation to hypoxia. The main regulatory role of HIF1 in normoxia and hypoxia conditions is in oxygen-sensitive protein-enzyme systems. However, it has been understood that miRNAs have significant roles in the transition from HIF1 to HIF2 and HIF3, especially in chronic hypoxic conditions.

The concept of chronotype; It is the differentiation of the circadian system at the individual level due to neurobiological and environmental factors. Today, it is known that light is not the only regulator of the circadian system. With recent studies; Blood and tissue oxygenation is cyclical, HIF1-alpha, which responds to cellular oxygen changes, is also responsible for this cyclicity by interacting with clock genes, oxygen levels in the physiological range may be sufficient for synchronization, oxygen can act as a resetter for the circadian clock through HIF1-alpha, therefore circadian It has been stated that oxygen modulation therapy may be recommended for rhythm disorders.

The aims of this study were to examine the levels of HIF1-alpha protein and miRNAs targeting HIF1 (miRNA-18a, miRNA-155, miRNA-210, miRNA-429, and miRNA-433) in peripheral blood samples from patients with BD-1 in remission, patients ADHD, and healthy controls and to investigate the association of clinical features, especially chronotype, and the above mentioned molecules.

**METHODS:** The study was approved by the Atatürk University Faculty of Medicine Clinical Research Medical Ethics Committee with the decision number 5, dated 04.03.2021, numbered B.30.2.ATA.0.01.00/71. In this study, 51 ADHD patients and 51 type-I BD patients who were diagnosed according to DSM-V diagnostic criteria and whose diagnoses were confirmed by structured psychiatric interview (SCID-V); 51 healthy controls, who were in the same age and education range as these patients and who were not diagnosed with any psychiatric disorder according to DSM-V criteria, were included in the study. Participants' inclusion and exclusion criteria were reviewed. Each participant was informed about the study and given an informed consent form. Participants were administered a sociodemographic and clinical data form, Young Mania Rating Scale, Hamilton Depression Rating Scale, Adult ADHD Self-Report Scale v1.1, and a morning-evening questionnaire. HIF1-alpha protein, miRNA-18a, miRNA-155, miRNA-210, miRNA-429, and miRNA-433 levels were measured in peripheral blood samples which taken from the participants according to a specific protocol. Results were compared between groups and relationships between clinical data and studied molecules were analyzed.

**RESULTS:** The HIF1-alpha protein levels were significantly lower in the BD and ADHD groups than in the control group. The miRNA-18a, miRNA-155, miRNA-429, and miRNA-433 levels were significantly higher in the BD group than in the control group. The miRNA-429 and miRNA-433 levels were significantly higher in the BD group than in the ADHD group. A negative correlation was found between the HIF1-alpha and miRNA-429 levels in the BD group. In addition, the patients with BD who had an intermediate chronotype had significantly higher miRNA-429 levels than those with the morningness types.

**CONCLUSIONS:** Our findings suggest that HIF1-alpha expression may play a role in the pathogenesis of BD and ADHD. We found that the expression of miRNA-18a, miRNA-155, miRNA-429, and miRNA-433 may affect the development of bipolar disorder. MiRNA-429 expression may play a role in regulating HIF1-alpha expression. We also demonstrated the possible association of miRNA-429 expression with BD chronotype. Our research is the first to evaluate the level of HIF1-alpha protein, which plays a fundamental role in the response to hypoxia, and miRNA levels, which are associated with HIF1 and its transformation mechanisms and are thought to mediate long-term and genetic interactions of environmental factors such as hypoxia. We believe that our results will contribute to elucidating the molecular mechanisms associated with hypoxia in bipolar disorder and ADHD and to the development of preventive and new treatment strategies for BD and ADHD.

**Keywords:** bipolar disorder, attention deficit hyperactivity disorder, HIF1-alpha, hypoxia, miRNA.

## EVALUATION OF PSYCHOTIC DISORDER PATIENTS IN TERMS OF TREATMENT ADHERENCE AND FUNCTIONALITY IN THE FIFTH YEAR AFTER DISCHARGE

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**BACKGROUND AND AIM:** Poor treatment adherence is a common therapeutic problem in patients with psychotic disorders. In this study, the change in the post-discharge treatment compliance and functioning over the years of inpatients with psychotic disorders and the factors affecting this will be examined.

**METHODS:** Patients with psychotic disorder who received inpatient treatment in Ondokuz Mayıs University Faculty of Medicine Psychiatry service between 30.06.2018-30.06.2019 and who were called within one and two years after discharge and included in the first two parts of the study were included in the study. Patients were called by telephone and information about their current disease status was obtained. As in the first two studies, the Morisky Treatment Compliance Scale, Clinical Global Impression Scale and Brief Functioning Assessment Scale were completed by telephone interviews with patients and their relatives. Approval for the study was obtained from Ondokuz Mayıs University Faculty of Medicine Clinical Research Ethics Committee with the number 2024/40.

**RESULTS:** There was an significant improvement at the mean score of the Clinical Global Impression Scale-Recovery between the second and fifth year. Half of the patients re-hospitalized in the five-year. The treatment compliance of the patients with rehospitalization, in the first and second years was similar to that of the group without rehospitalization, whereas in the fifth year the treatment compliance was worse.

**CONCLUSIONS:** Poor treatment adherence is associated with many adverse outcomes such as the need for re-hospitalization in patients with psychotic disorder. The factors affecting patient adherence to treatment should be determined and necessary arrangements should be made.

**Keywords:** psychotic disorders, treatment adherence, medication non-compliance, functionality

## GENDER DIFFERENCES IN SUICIDAL IDEATION AND SUICIDE ATTEMPTS IN EMERGENCY PSYCHIATRIC CONSULTATIONS: A UNIVERSITY HOSPITAL SAMPLE

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Attempted suicide is a self-destructive act carried out with the intent to end one's life but does not result in death. The term suicidal ideation describes a range of preoccupations with death and suicide. As literature shows, people presenting to emergency departments with suicidal ideation vary in age, gender and socio-economic status. This study aims to identify the age and gender differences of patients who are referred to emergency unit due to suicide attempts and suicidal ideation.

Data of the patients who visited the emergency unit and received psychiatric care at Eskişehir Osmangazi University Hospital between 01.01.2019-31.12.2023 are included. Consultation reports of the patients were examined by 3 researchers and classified as suicide attempt, suicidal ideation or other, utilizing Nock's algorithm(2010). Duplicated consultations(n=4) were excluded. Eskişehir Osmangazi University Non-invasive Clinical Research Ethics Committee approved the study(02.01.2024/24).

Among the emergency psychiatric applications (n=2681), 396 were suicide attempts, mean age was  $33.95 \pm 13.24$ , and 60.9% (n=241) were women. Suicidal ideation was detected in 429 applications; the mean age was  $38.39 \pm 15.47$ , and 51.3% (n=220) were men. Ratio of women was significantly higher in 2019, 2020, 2022, and 2023 regarding suicide attempts (respectively 15.7% vs. 6.8% p=0.001, 20.7% vs. 12.4% p=0.016, 20.2% vs. 14.1% p=0.041, 19.4% vs. 11% p=0.002). Suicidal ideation also had sex differences: In 2023, men had higher ratio of suicidal ideation (19.5% vs 13.0% p=0.010).

The present study demonstrates growing suicidal ideation among men who apply Eskişehir Osmangazi University Hospital emergency department. The significant increase in suicide attempts between 2019-2020 in both genders can be attributed to the effect of the Covid-19 pandemic on mental stressors. Ratio of men who have suicidal ideation in 2023 is higher than the years before. This finding may be related to growing financial difficulties in terms of sociocultural roles assigned to men.

**Keywords:** suicide attempt, attempted suicide, suicidal ideation, emergency department, emergency psychiatric care

## DETERMINANTS OF COVID-19 VACCINATION STATUS IN INDIVIDUALS WITH SUBSTANCE USE DISORDERS: INSIGHTS FROM A PROBATION CLINIC IN TURKEY

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**BACKGROUND AND AIM:** People with substance use disorder (SUD) are at high risk of harms from COVID-19 infection and vaccine hesitancy is common in this population. Studies have identified multilevel barriers to COVID-19 vaccination among SUD patients, including lack of knowledge, low perceived risk for COVID-19, institutional mistrust, addiction-related stigma, and other structural barriers to healthcare access and utilization. We aimed to determine the factors affecting the COVID-19 vaccination status in individuals with substance use disorder in a probation outpatient clinic.

**METHODS:** Vaccination and COVID-19 related health status of 177 patients were accessed via the digital health record system of Ministry of Health of Turkey. Symptom Checklist (SCL-90) paranoid ideation (PAR) dimension and Oxford COVID-19 Vaccine Confidence and Complacency Scale were applied to the participants. High scores from this scale indicates lower trust towards vaccines. hospital (Ethics number: 2024/235, Ethics date: 31.01.2024).

**RESULTS:** Of the participants, 92.1% (n=163) were male and 58.2% (n=103) were single, 67.2% (n=119) were employed and 58.8% (n=104) had health insurance. The mean vaccination number was 1.68±1.24 and 27.7% remained unvaccinated. While 24.3% (n=43) of the participants have never had a COVID-19 test, 22.6% (n=40) have had positive test results at least one time. There was no association between sociodemographic data, COVID-19 history and vaccination status (p>0.05). There was no correlation between paranoid features and vaccination status (p>0.05). The Oxford Vaccine Confidence Scale score negatively predicted vaccination status (B = -0.053, p < 0.001), indicating that higher levels of vaccine confidence are associated with a decreased likelihood of being vaccinated. For every one-point increase in the Oxford scale, the odds of being vaccinated decrease by a factor of 0.948 (Nagelkerke R Square of 0.262)

**CONCLUSIONS:** Our results show that low confidence towards vaccines affects vaccination rates. Strategies should be developed to increase SUD patients' confidence in vaccination.

**Keywords:** Covid-19, substance use disorder, vaccine confidence

## ASSESSMENT OF SOCIODEMOGRAPHIC AND CLINICAL DATA OF ONCOLOGY PATIENTS IN A MEDICAL ONCOLOGY UNIT WHO WERE CONSULTED TO THE PSYCHIATRY AND DETERMINING FACTORS INFLUENCING SUICIDAL IDEATION

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**BACKGROUND AND AIM:** The reviewed studies showed that cancer patients have an elevated risk of suicide when compared to the general population. The aim of this study is to evaluate the sociodemographic and clinical data of oncology patients receiving treatment at a university hospital, who were consulted to the psychiatry and to determine the factors influencing suicidality.

**METHODS:** Sociodemographic and clinical data of 155 cases who received outpatient and inpatient treatment in the medical oncology unit and were also consulted to the psychiatry of Izmir Katip Çelebi University Atatürk Training and Research Hospital between February 1, 2023 and February 1, 2024, were analyzed retrospectively. Ethical approval for this study was obtained from the same hospital's Ethics Committee(2024-GOKAE-0082).

**RESULTS:** Out of the 155 patients, 39 (25.2%) were inpatients, 116 (74.8%) were outpatients, 80 (51.6%) were women and 75 (48.4%) were men. The mean age of the patients was 59.50 ± 15.0 years, and mean duration of hospitalisation was 11.31 ± 9.6 days. Forty-eight patients (31.0%) had breast cancer, 37 (23.9%) had gastrointestinal cancer, 31 (20.0%) had lung cancer and 39 (25.1%) had other cancer diagnoses. Fifty-five (35.5%) patients were diagnosed with depressive disorders, 36 (23.2%) with adjustment disorders, 19 (12.3%) with anxiety disorders, 14 (9.0%) with delirium, 11 (7.1%) had sleep disorders, 6 (3.9%) with mixed anxiety and depressive disorder, 7 (4.5%) with other psychiatric disorders, and 7 (4.5%) were examined for administrative purposes. Twelve of the patients (7.7%) had thoughts of suicide. Suicide thoughts were found to be significantly higher in outpatients than inpatients (p<0.05) and in patients with breast cancer compared to patients diagnosed with other cancers (p<0.05) and less in married patients (p<0.05).

**CONCLUSIONS:** Sociodemographic, clinical data, and type of the cancer disease are among the factors affecting the risk of suicide in cancer patients. Identifying and treating these risk factors can contribute to the prevention of suicidality.

**Keywords:** cancer patients, psychiatric disorders, suicide



## INVESTIGATION OF PARENTAL ATTITUDES IN CHILDREN WITH ATTENTION DEFICIT/HYPERACTIVITY DISORDER AND OPPOSITIONAL DEFIANT DISORDER

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**BACKGROUND AND AIM:** Attention deficit hyperactivity disorder (ADHD) is a psychiatric disorder characterized by inattention, hyperactivity and impulsivity. It is reported that ADHD is most often accompanied by oppositional defiant disorder (ODD), which causes behavioral problems and poor family functioning. This study aimed to compare parental attitudes in children with ADHD and ODD with healthy controls.

**METHODS:** 40 patients diagnosed with ADHD, 36 patients diagnosed with ADHD+ODD and 44 healthy children between the ages of 6-12 participated in the study. Sociodemographic data form, Conners Parent Rating Scale-Short Form (CPRS), Turgay DSM-IV Based Disruptive Behaviour Disorders Screening and Rating Scale (T-DSM-IV-S) and Parental Attitude Research Instrument (PARI) was filled in by the children's mothers. This research was approved by the Ethics Committee of Erciyes University Faculty of Medicine with the decision dated 31.05.2023 and numbered 96681246.

**RESULTS:** A total of 120 children and their parents, 85 boys (71.4%) and 34 girls (28.6%), participated in the study. There was no significant difference between the groups in terms of children's age, gender and grade ( $p>0.05$ ). It was observed that the average value of the overprotectiveness subscale of the ADHD group was higher than the average values of the other 2 groups ( $p<0.001$ ). It was observed that the subscale scores of family discord and strict discipline of the ADHD and ADHD + ODD groups were higher than the scores of the control group ( $p = 0.007$  and  $p = 0.010$ , respectively).

**CONCLUSIONS:** Parents of children with ADHD tend to be more strictly disciplined and disapproving of their children. In addition to inhibiting autonomy in children, controlling parenting has also been associated with behavioural problems. Our study was found to be compatible with the current literature in this context.

**Keywords:** attention deficit hyperactivity disorder, oppositional defiant disorder, parental attitudes

## RELATIONSHIP BETWEEN AGE OF ONSET IN BIPOLAR DISORDER AND CLINICAL, PROGNOSTIC PROPERTIES

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**BACKGROUND AND AIM:** Bipolar disorder's onset age significantly influences its course, prognosis, and treatment response. Analyzing patients categorized by onset age can elucidate clinical differences and foster targeted treatment approaches. This research evaluates clinical and sociodemographic characteristics across different onset age groups.

**METHODS:** In this study, the files of 355 patients diagnosed with Bipolar Disorder according to DSM-V-TR criteria at Selçuk University Psychiatry Clinic were retrospectively examined. Data analysis was done using SPSS 25.0. An application was made to the ethics committee.

**RESULTS:** Among participants, 55.8% were female and 44.2% male, with an average age of 37.8 years and education level of 12 years. A strong correlation emerged between onset age and education level, with a weaker link to episode count. Dividing onset age into early (<21), middle (21-40), and late (>40) revealed significant distinctions in the late group regarding gender (69.6% female), marital status (83.8% married), and employment (20% working), contrasted with the other groups ( $\chi^2=5.56$ ,  $p=0.018$ ;  $\chi^2=74.7$ ,  $p<0.001$ ;  $\chi^2=37.7$ ,  $p<0.001$ ). The late group also had the lowest education and hospitalization rates ( $F=6.96$ ,  $p=0.001$ ;  $F=23.65$ ,  $p<0.001$ ).

**CONCLUSIONS:** Previous studies have shown that various subgroups exist in bipolar disorder according to age at onset, but the relationship between these subgroups and clinical characteristics has not been adequately investigated. Bimodal and trimodal age models have been proposed for BD. Trimodal age distribution is the most accepted by clinicians. This study was conducted to determine whether the trimodal age distribution differs in terms of sociodemographic and clinical characteristics.

**Keywords:** bipolar disorder, age at onset, diagnostic subtypes



## COMPARISON OF THE BENEFIT OF TRANSCRANIAL MAGNETIC STIMULATION THERAPY IN TREATMENT-RESISTANT MAJOR DEPRESSIVE DISORDER PATIENTS AND TREATMENT-RESISTANT OBSESSIVE COMPULSIVE DISORDER PATIENTS

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**BACKGROUND AND AIM:** Transcranial Magnetic Stimulation (TMS) is a neuromodulation technique increasingly utilized in psychiatry, aiming to stimulate neuron firing through a magnetic field. Its indications encompass depression and obsessive-compulsive disorder (OCD), with expanding applications due to evolving TMS protocols. Our study aimed to compare TMS effectiveness in Major Depression (MD) and OCD patients using various scales.

**METHODS:** Patients diagnosed with Major Depression (MD) and Obsessive Compulsive Disorder (OCD) and followed up in our outpatient clinic between 2020 and 2024 were included in the study. Patients were evaluated using the Hamilton Depression Scale (HDS), Yale Brown OCD Scale (YBOS), Beck Anxiety Scale (BAS) and Beck Depression Scale (BDS) three times before, after the 10th session and after 20 sessions of TMS applied to DLPFC. Approval was obtained from the local ethics committee.

**RESULTS:** The study comprised 49 patients, with 31 (63.3%) females and 18 (36.7%) males. Among them, 32 (65.3%) were diagnosed with MD and 17 (34.7%) with OCD. No significant gender difference was observed between the groups ( $p=0.638$ ). Following TMS, depression patients exhibited a 3.88 times decrease in HDS values compared to baseline, while OCD patients showed a decrease of 2.01 times in YBOCS values, and an overall HDS decrease of 2.26 times. There was no statistically significant difference in the decrease of HDS values between depression and OCD patients ( $p=0.289$ ). However, a statistically significant difference was found in the decrease of YBOCS values between depression and OCD patients ( $p=0.045$ ).

**CONCLUSIONS:** In our study, significant differences were noted in TMS effectiveness between depression and OCD patients. TMS exhibited greater efficacy in depression, likely attributed to its targeting of the DLPFC, a brain region associated with depression. Conversely, OCD involves deeper brain areas like the supplementary area and medial prefrontal cortex, which may not be as directly influenced by DLPFC-targeted TMS. Further longitudinal studies with larger sample sizes are needed for more robust conclusions.

**Keywords:** depression, obsessive compulsive disorder, transcranial magnetic stimulation, treatment resistance

## THE ASSOCIATION BETWEEN NIGHT EATING SYNDROME AND SOME OTHER PSYCHIATRIC DISORDERS IN PRECLINICAL MEDICAL STUDENTS

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**BACKGROUND AND AIM:** We aim to investigate whether there is variability in impulsivity, somatization, depression, generalized anxiety disorder, and panic disorder between preclinical medical students with night eating syndrome and medical students without night eating syndrome.

**METHODS:** This study included 250 preclinical medical students. 21 students were excluded from the research for not completing the survey. Participants completed the Night Eating Questionnaire (NEQ), Barratt Impulsiveness Scale (BIS), Patient Health Questionnaire-15 (PHQ-15), Patient Health Questionnaire-9 (PHQ-9), Patient Health Questionnaire-5 (PHQ-5), and Generalized Anxiety Disorder-7 (GAD-7) scales. PHQ-15 was used for somatization, PHQ-9 for depression, PHQ-5 for Panic Disorder, and GAD-7 for generalized anxiety disorder. Ethical approval for the study was obtained from the Necmettin Erbakan University Ethics Committee (IRB= 01/03/2024-193).

**RESULTS:** The probable NES group had significantly higher scores on the BIS's nonplanning, attentional impulsiveness and motor impulsiveness subscales compared to the non-NES group ( $p<0.001$ ,  $p<0.05$ ,  $p<0.001$ , respectively). The PHQ-15 score of the probable NES group ( $M=11.94$ ,  $SD=5.99$ ) was significantly higher than that of the non-NES group ( $M=9.77$ ,  $SD=5.17$ ) ( $p<0.05$ ). The PHQ-9 score of the probable NES group ( $M=13.29$ ,  $SD=5.91$ ) was significantly higher than that of the non-NES group ( $M=9.82$ ,  $SD=5.42$ ) ( $p<0.001$ ). The PHQ-5 score of the probable NES group ( $M=2.25$ ,  $SD=1.79$ ) was significantly higher than that of the non-NES group ( $M=1.51$ ,  $SD=1.72$ ) ( $p<0.05$ ). The GAD-7 scale score of the probable NES group ( $M=10.28$ ,  $SD=5.34$ ) was significantly higher than that of the non-NES group ( $M=8.40$ ,  $SD=5.28$ ) ( $p<0.05$ ). The NEQ scores were found to have a significant positive correlation with the BIS total score, PHQ-15, PHQ-9, PHQ-5, and GAD-7 scores ( $r=0.41$ ,  $r=0.29$ ,  $r=0.42$ ,  $r=0.30$ ,  $r=0.30$ , respectively).

**CONCLUSIONS:** The findings of our study, similar to publications reporting an increased risk of psychopathology in night eating syndrome, indicate that night eating syndrome intertwines with the presentation of many other disorders. This situation negatively impacts the diagnosis of night eating syndrome.

**Keywords:** NES, impulsivity, somatization, depression, anxiety disorder, panic disorder

## DYNAMICS UNDERLYING DISCHARGE DECISIONS AGAINST MEDICAL ADVICE: SOCIODEMOGRAPHIC AND CLINICAL PROFILE ANALYSIS OF PSYCHIATRIC PATIENTS

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**BACKGROUND AND AIM:** Some inpatients in psychiatric units decide to leave against medical advice. This study explores sociodemographic and clinical reasons for these decisions, emphasizing the importance of psychiatric diagnoses, treatment pathways, and patient-healthcare team relationships. Addressing these areas is crucial for preventing and managing treatment refusal effectively.

**METHODS:** This investigation focused on 32 out of 726 patients at the Psychiatry Department of Selçuk University Faculty of Medicine, who left the hospital voluntarily against advice between January 2022 and February 2024. Utilizing a cross-sectional approach, data was gathered through the hospital's digital system, analyzing sociodemographic and clinical information. (ethics committee has been applied)

**RESULTS:** Among those who left early, 56.25% were female, averaging 28.3 years old ( $\pm 11.5$ ). Over half (53.1%) were married, staying in the hospital for an average of 5.8 days. A significant majority (81.25%) were first admissions, diagnosed primarily with depressive disorder (34.37%), anxiety disorder (28.1%), bipolar disorder in depressive phase (18.75%), dissociative disorder (12.25%), and obsessive-compulsive disorder (6.25%). Notably, 15.6% departed outside of working hours, with 46.8% continuing outpatient follow-ups.

**CONCLUSIONS:** The lower rate of self-discharge in our study (4.4%) compared to literature (16%) suggests that the increase in resident doctors and higher doctor-to-patient ratios, particularly with first-year residents, may positively impact patient retention through proactive engagement and interactions. The higher discharge rate among women might reflect the clinic's mixed-gender treatment environment, indicating a need to consider gender dynamics in psychiatric treatment settings. Despite most discharges occurring during working hours, indicating possible hesitancy among on-call doctors in decision-making, our findings on diagnosis distribution, hospital stay lengths, and first-time admission rates align with existing literature. The study's limitations, including its retrospective nature and small sample size, highlight the necessity for further research to confirm and expand these findings.

**Keywords:** discharge against medical advice, psychiatric admissions, refusing treatment

## COMPARISON OF INFLAMMATORY MARKERS (NEUTROPHIL-TO-LYMPHOCYTE RATIO (NLR), PLATELET-TO-LYMPHOCYTE RATIO (PLR), AND MONOCYTE-TO-LYMPHOCYTE RATIO (MLR)), BEFORE AND AFTER ELECTROCONVULSIVE THERAPY (ECT) IN SEVERE PSYCHIATRIC DISORDERS

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**BACKGROUND AND AIM:** There is increasing evidence that mania, depression and psychosis are associated with a systemic immune activation that includes abnormalities in inflammatory markers, immune cell numbers, and antibody titers. Neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), and monocyte-to-lymphocyte ratio (MLR) are indicators that can be calculated from the complete blood count test. They have been used as indicators of systemic inflammation in numerous studies, including neuropsychiatric disorders. Electroconvulsive therapy (ECT) remains the most effective acute antidepressant and antimanic treatment. This study aimed to investigate the effect of ECT, which has been used for a long time in the treatment of severe mental disorders on systemic inflammatory markers including NLR, MLR, and PLR.

**METHODS:** Forty-five patients who underwent inpatient ECT, whose medical treatment was not changed during ECT and who had no infectious diseases and whose complete blood counts were available before and after ECT were included in the study. MLR, PLR and NLR were retrospectively compared before and after ECT.

**RESULTS:** Of the patients in our study, 20 were men and 25 were women. The average age was 47.7 (27-67) and the average number of ECTs performed was 7.9 (6-12). 19 of our patients were diagnosed with major depressive disorder, 11 with bipolar disorder manic episode, 9 with bipolar disorder depressive episode, and 6 with schizophrenia. When the MLR, PLR and NLR values of the patients before and after ECT were examined, the difference between the MLR values was statistically significant ( $p = 0.026$ ). The difference between PLR and NLR values was not statistically significant ( $p=0.516$ ,  $p=0.799$  respectively).

**CONCLUSIONS:** In our study, the statistically significant decrease in MLR rates after ECT supports the role of inflammatory markers in severe psychiatric disorders. The decrease in MLR value can also be used as an indicator of response to ECT.

**Keywords:** ECT, inflammatory markers, NLR, MLR, PLR

## RELATIONSHIP BETWEEN INTOXICATION AND SUICIDE ATTEMPTS: CLINICAL AND DEMOGRAPHIC CHARACTERISTICS

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**BACKGROUND AND AIM:** According to recent data from the Turkish Statistical Institute (2022), there have been 4,146 deaths due to suicide in the past year in Turkey. The crude suicide rate in the population is 4.88 per 100,000. 75% (3,111) of the individuals who died by suicide were male. 8.5% (353) of the suicide cases occurred due to intoxication. While this rate is lower among males at 4.6% (144), it is the third most common method among females at 20.2% (209) compared to the general population.

**METHODS:** A total of 52 patients admitted to Başakşehir Çam and Sakura City Hospital with toxicology admission due to suicide risk indication and subsequently transferred to the psychiatry service were evaluated. Patient histories, hospital records, and sociodemographic data were used for data collection. Age, gender, marital status, substance use, and current psychiatric disorders were assessed.

**RESULTS:** According to the results of the study, suicide attempts with intoxication were most commonly observed in the age group with a median age of 31, particularly between 25-30 years. 75% of all patients were single, and 59.6% were female. 22% of the group had a history of psychoactive substance use. 65.4% of the group had a diagnosis of unipolar depression, 25% had bipolar disorder, and 9.6% had psychotic disorders. 42.9% of the group had non-psychiatric comorbidities.

**CONCLUSIONS:** The results obtained indicate that being single, female gender, psychoactive substance use, and having comorbidities constitute risk factors for suicide with toxic substance use.

**Keywords:** suicide, toxic, gender, age, psychoactive substance

## CHILD CHARACTERISTICS AND PARENTAL ANXIETY LEVELS OF THE PATIENTS APPLYING FOR PRIMARY SCHOOL ENTRY DELAY REPORT FOR THE 2023-2024 ACADEMIC YEAR IN SIVEREK, ŞANLIURFA

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**BACKGROUND AND AIM:** Mandatory age for entering primary school in Türkiye is 71 months. Parents of Children aged 71-78 months can apply for a School Entry Delay Report (SDR). Mental, social, and motor development of the child should be evaluated to decide school readiness. The aim of the study is to identify the diagnoses, developmental problems and parental anxiety levels of the children evaluated for a SDR in a rural town, right after a major earthquake

**METHODS:** Ethics Committee Approval was obtained with 2021/513 protocol number, written consent was obtained from all the participants. Ankara Developmental Inventory was applied to patients. Beck Anxiety Inventory (BAI) was completed by the mothers. ICD code diagnosis and developmental levels mentioned in the official reports were noted for descriptive analysis. Control group was matched from a previous data set of the researcher consisting of 15 children with typical development, attending kindergarten and aged 60-71 months.

**RESULTS:** Eleven children (8 boys, 72.7%) received a SDR in total. All the patients and mothers agreed to participate and signed the consent form. Mean chronological age was 72.4±1.7 months. Mean BAI score was 10.9±7 (min2, max 25). BAI score of the control group was 4.4±5 in comparison. Three (%27.3) of the children were attending preschool education. Main ICD codes were five language delay, two autism spectrum disorder (ASD), one attention deficiency hyperactivity disorder (ADHD), one epilepsy, one selective mutism, one post traumatic stress disorder and one separation anxiety. Language delay was observed in six (54.5%), Fine motor delay in five (45.5%), Social delay in four (36.4%), gross motor delay in three (27.3%) of the children.

**CONCLUSIONS:** Delays in language and fine motor development are the primary reasons for SDR. Neurodevelopmental disorders and anxiety spectrum disorders cause problems in school readiness. Parental anxiety levels are elevated in this group, calling for further studies.

**Keywords:** school readiness, developmental delay, anxiety

## COMPARISON OF CARDIOVASCULAR DISEASE RISK WITH PRIMROSE SCORES IN OUTPATIENTS AND NURSING HOME PATIENTS WITH PSYCHOTIC DISORDER

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**BACKGROUND AND AIM:** This study investigates the cardiovascular disease risk in individuals with serious psychiatric disorders, like schizophrenia and bipolar disorder, using the PRIMROSE model (<https://www.ucl.ac.uk/primrose-risk-score/>). It focuses on comparing the future cardiovascular risk between patients in nursing homes and those receiving outpatient treatment, emphasizing how living conditions and treatment settings may impact disease progression.

**METHODS:** Patients at the Psychotic Disorders Outpatient Clinic were evaluated using the “Psychotic Disorders - Treatment Monitoring Protocol”, which involves sociodemographic, clinical, laboratory, and measurement data, along with PRIMROSE scoring that covers age, gender, HDL, total cholesterol, blood pressure, smoking and alcohol use, and the use of antidepressants and antipsychotics. Approval was sought from the Selçuk University ethics committee.

**RESULTS:** The study included 173 patients, of which 61 were female and 112 were male. The age of the patients ranged from 18 to 76 years, with an average age of  $45.15 \pm 13.42$ . Sixty-seven of the patients were residing in nursing homes, and 106 were being followed on an outpatient basis. No significant difference was found between the two groups in terms of age and gender. The average PRIMROSE score of the patients residing in nursing homes was  $4.35 \pm 15.91$ . For patients being followed on an outpatient basis, the average score was  $5.25 \pm 21.52$ . The Mann Whitney U test showed no significant difference between the two groups ( $p=0.371$ ). Although not statistically significant, it was observed that patients residing in nursing homes had lower PRIMROSE scores.

**CONCLUSIONS:** According to the findings of this study, although patients who were followed on an outpatient basis had higher average PRIMROSE scores, potentially indicating a greater risk of cardiovascular disease, no statistically significant difference was found. This situation needs to be evaluated in longitudinal studies with larger samples where other medical conditions and medications used are also taken into account.

**Keywords:** schizophrenia and other psychotic disorders, PRIMROSE model, cardiovascular risk

## RETROSPECTIVE EVALUATION OF GLOMERULAR FILTRATION RATE IN PATIENTS DIAGNOSED WITH BIPOLAR DISORDER IN A UNIVERSITY HOSPITAL

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**BACKGROUND AND AIM:** Bipolar disorder (BD) is a chronic illness characterized by relapses. Long-term lithium treatment, widely used in BD management, is associated with nephrotoxicity and impaired renal function tests (RFTs). This study aims to retrospectively evaluate RFTs in BD patients and investigate their relationship with treatment duration, clinical variables, and medical conditions.

**METHODS:** Data from 156 BD patients followed at Selçuk University Faculty of Medicine, Department of Psychiatry were retrospectively screened. Sociodemographic and clinical variables, RFTs, and lithium levels were recorded. The ethics committee application has been submitted.

**RESULTS:** Of the participants, 55.1% were female, with a mean age of  $41.7 \pm 13$  years; a mean illness duration of  $16.1 \pm 10$  years; and 53% ( $n=104$ ) were using lithium. The mood stabilizers used were lithium+valproic acid (17.3%,  $n=27$ ), lithium (49.3%,  $n=77$ ), and valproic acid (33.3%,  $n=52$ ). The mean eGFR was  $108.6 \pm 17.2$  mL/min/1.73 m<sup>2</sup>, creatinine  $0.83 \pm 17.2$  mg/dL, and urea  $22.8 \pm 7.92$  mg/dL. There was no significant difference between lithium users and non-users in terms of demographic and clinical variables. Urea levels were significantly higher in the lithium group ( $p=0.00$ ). Patients who used lithium for more than 10 years were older than non-users (mean age 48.4,  $p=0.000$ ), had a longer illness duration (mean 23.9,  $p=0.00$ ), and had higher rates of bipolar disorder type 1 ( $n=48$ , 40.3%) and medical comorbidities ( $p=0.0014$ ), especially hypothyroidism ( $n=21$ ). No significant differences were observed in eGFR and creatinine levels depending on lithium use or duration.

**CONCLUSIONS:** In our study, we found no significant difference in RFTs other than urea between long-term lithium users and non-users. Upon reviewing previous studies, it was observed that while most studies found differences in RFT scores, some studies did not observe any differences. In addition to lithium, other medical conditions and treatments should be considered when evaluating RFT in BD patients. It should also be kept in mind that other mood stabilizers and antipsychotics may have negative effects on RFTs.

**Keywords:** renal function tests, Glomerular Filtration Rate, lithium, bipolar disorder

## INVESTIGATION OF THE EFFECT OF ANTIDEPRESSANT TREATMENT ON SERUM NEUROFILAMENT LIGHT CHAIN (NFLC) LEVEL IN DEPRESSIVE DISORDER PATIENTS AND THE RELATIONSHIP BETWEEN NFLC LEVEL AND SUICIDALITY AND ANHEDONIA; PRELIMINARY FINDINGS

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**BACKGROUND AND AIM:** Depressive Disorder is a significant illness affecting over 300 million people and largely impairing their functionality. It is believed that genetic, neurological, hormonal, immunological, and neuroendocrinological mechanisms play a role in the development of Depressive Disorder. Evidence suggesting the presence of neuroinflammation and neuroaxonal damage in Depressive Disorder is increasingly emerging. Elevated levels of serum Neurofilament Light Chain (NFLc), used as a marker of neuroaxonal damage. This study aims to determine the relationship between the severity of depression, accompanying anhedonia symptoms, suicidal thoughts, and serum NFLc levels in depression patients.

**METHODS:** After receiving approval from Marmara University Ethics Committee; 32 patients diagnosed with unipolar Major Depressive Disorder according to DSM-5 criteria and not using psychotropic medications in the last 6 months, along with 44 healthy volunteers without psychiatric and neurological illnesses based on clinical evaluation, were included in our study. In the initial assessment, patients were administered the Hamilton Depression Scale, Snaith Hamilton Pleasure Scale, and Suicide Behavior Scale. Additionally, blood samples were taken from patients and healthy control groups to determine serum NFLc levels during the first visit. Serum NFLc levels were calculated using an ELISA kit.

**RESULTS:** The study group comprised 34 participants, while the healthy control group comprised 46 participants. The mean age of the study group was  $34.44 \pm 14.9$  years, with 82% female, 50% high school graduates, and 47% single individuals. The mean age of the control group was  $32.1 \pm 10.2$  years, with 69% female, 72% university graduates, and 60% single individuals. A statistically significant relationship was found between Neurofilament levels of the study ( $47.267$ ) and control ( $146.123$ ) groups ( $p < 0.05$ ).

**CONCLUSIONS:** Our study revealed a statistically significant difference in NFLc levels between the patient group and healthy controls. Serum NFLc levels were higher in the healthy control group, which may be associated with a higher sample size. However, no significant relationship was found between the severity of depression, accompanying anhedonia, suicidal thoughts, and NFLc levels.

**Keywords:** depressive disorder, neuroaxonal damage, Neurofilament Light Chain (NFLc)

## EXAMINING THE RELATIONSHIP BETWEEN SOCIAL ANXIETY LEVELS AND ADDICTION SEVERITY IN PATIENTS DIAGNOSED WITH ALCOHOL USE DISORDER UNDERGOING INPATIENT TREATMENT

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**BACKGROUND AND AIM:** Alcohol use disorder (AUD) is a significant worldwide health concern. It is anticipated that the relationship between AUD and Social Anxiety Disorder (SAD) may be more frequent compared to other disorders in this group. AUD encompasses symptoms such as loss of control over alcohol consumption, experiencing negative consequences, tolerance, withdrawal, and craving. SAD involves intense anxiety and fear of negative judgment, with some individuals using alcohol to cope, potentially worsening AUD. Conversely, those with SAD are at higher risk of developing AUD. Assessing SAD during AUD treatment is crucial for achieving better outcomes. Our study aims to investigate this connection, directing customized treatments within a restricted timeframe.

**METHODS:** We conducted a cross-sectional study involving voluntary AUD patients aged 18-65 in our inpatient clinic. The ethics committee decision number is 23. Participants must consent and meet DSM-5 criteria for AUD. The data collected includes demographic information, Liebowitz Social Anxiety Scale (LSAS), General Anxiety Disorder-7 (GAD-7) and Addiction Profile Index-Short Form (API). The correlation between LSAS, GAD-7, API, and treatment duration was analyzed through Pearson correlation tests. The statistical significance level will be set at  $p < 0.05$ .

**RESULTS:** Out of the 40 patients enrolled in the study, 30 were male, 10 were female. The average length of stay was found to be  $18.43$  ( $SD = 7.16$ ). We identified a moderate positive correlation between length of stay, fear subscale and total LSAS scores. There was no correlation with the total score of API. GAD-7 scores exhibit a significant positive correlation with the total score of API while showing no correlation with the length of stay.

**CONCLUSIONS:** Our findings support existing evidence that anxiety disorders predict poorer treatment outcomes. The presence of social anxiety, general anxiety disorder in individuals with alcohol use disorder may influence clinical variables such as addiction severity and length of hospital stay, highlighting the need to address these issues in treatment.

**Keywords:** alcohol use disorder, social anxiety disorder, anxiety disorder



## ASSESSMENT OF SIDE EFFECTS IN PATIENTS WITH TREATMENT-RESISTANT DEPRESSION TREATED WITH RTMS AT A UNIVERSITY HOSPITAL PSYCHIATRIC CLINIC

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**BACKGROUND AND AIM:** This study aims to evaluate adverse effects of repetitive transcranial magnet stimulation (rTMS) treatment throughout initial and final sessions for people with treatment-resistant major depressive disorder (MDD). The study also seeks to link these side effects to treatment response.

**METHODS:** The sample of the study consists of patients who received rTMS treatment with a diagnosis of treatment-resistant MDD in our psychiatric neuromodulation unit between 01.01.2023 and 01.01.2024. The data of the study, including the Sociodemographic Data Form, the side effect form prepared for rTMS, and the Montgomery Asberg Depression Rating Scale(MADRS), were collected after the first and last rTMS sessions.

**RESULTS:** An analysis of 61 patients was performed. The mean age was  $45.60 \pm 15.05$ . The average age of diagnosis for major depressive illness was  $37.32 \pm 14.17$  years. In all, 33 patients (54.1%) had primary and secondary education. Of the whole population, 43(70.5%) were unemployed, 47(77%) women and 38 (62.3%) married. After the first rTMS session, twelve (19.7%) reported headaches, one (1.6%) nausea, one (1.6%) vomiting, one (1.6%) presyncope, one (1.6%) speech issues, and two (3.2%) other side effects. Forty-six (75.4%) patients reported no side effects. After the last rTMS session, five (8.2%) reported headaches, two (3.2%) nausea, one(1.6%) vomiting, and one (1.6%) other side effects. Fifty-three (86.9%) patients reported no side effects. The MADRAS scores were used for grouping patients into three groups based on treatment responses. (response 32 (52.5%), partial response 32 (52.5%) and no response 9 (14.8%)) No significant variation was observed between the groups with regard to the incidence of adverse effects during the first ( $X^2 = 0.409$ ,  $p = 0.815$ ) and last ( $X^2 = 2.102$ ,  $p = 0.350$ ) rTMS sessions.

**CONCLUSIONS:** Headache is the most frequently reported adverse effect following rTMS. There were no adverse effects that necessitated the cessation of rTMS treatment. rTMS is a secure alternative for managing treatment-resistant depression.

**Keywords:** headache, adverse effects, transcranial magnetic stimulation, repetitive

## COMPARISON OF COMBINED BLOOD INDEXES OF SYSTEMIC INFLAMMATION IN FIRST EPISODE PSYCHOSIS PATIENTS WITH HEALTHY CONTROL GROUP: A RETROSPECTIVE STUDY

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**BACKGROUND AND AIM:** Various reasons have been suggested for the etiology of psychosis. Recent studies have claimed that psychosis may be related to inflammatory mechanisms. In order to evaluate the findings that psychosis and inflammatory processes may be related, we aimed to compare CRP, neutrophil lymphocyte ratio (NLR), platelet lymphocyte ratio (PLR), monocyte lymphocyte ratio (MLR), Agregated systemic inflammation index (AISI), systemic immune-inflammation index (SII), systemic immune inflammation response index (SIRI) of healthy controls and first-episode psychosis patients and to investigate the potential role of these markers in the disease.

**METHODS:** This study includes 88 first-episode psychosis patients who were hospitalized in Beyhekim psychiatry clinic between 2012-2022 and 78 healthy controls with no psychiatric history. Demographic data, complete blood count, and laboratory results were obtained through the hospital's electronic medical record. Ethics Committee Approval was obtained from the University of Health Sciences-Hamidiye scientific research ethics committee(decision number 2/29)

**RESULTS:** In our study 49 of the patients were male (55.6%) and 39 (44.3%) were female. In the control group, there are 37 (47.4%) male and 41 (52.5%) female. The mean age was  $32.07 \pm 11.3$  in the patients and  $34.64 \pm 6.2$  in the control group. There is no significant difference between the patient and control groups in terms of age, gender, non-psychiatric disease and smoking ( $p=0.070$ ,  $p=0.351$ ,  $p=0.262$ ,  $p=0.866$ ). A significant difference was found when wbc, monocyte, MLR, neutrophile, SIRI, SII, NLR, AISI, CRP values were compared ( $p=0.002$ ,  $p=0.000$ ,  $p=0.000$ ,  $p=0.000$ ,  $p=0.000$ ,  $p=0.001$ ,  $p=0.000$ ,  $p=0.001$ ,  $p=0.004$ ).

**CONCLUSIONS:** Our study highlights the role of systemic inflammation in the pathophysiology of psychosis. Wbc, monocyte, MLR, neutrophile, SIRI, SII, NLR, AISI, CRP values obtained from simple and inexpensive blood tests were significantly higher in patients than in healthy controls. More studies are needed to find the link between inflammation and psychosis.

**Keywords:** first-episode psychosis, inflammation, neutrophil-lymphocyte ratio, monocyte/lymphocyte ratio

## FACTORS ASSOCIATED WITH SUICIDE RISK IN ELDERLY PATIENTS TREATED AS INPATIENTS AT A UNIVERSITY HOSPITAL

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**BACKGROUND-AIM:** As the global population ages and life expectancy increases due to declining birth rates and improved living conditions, there is a growing elderly population, highlighting the importance of elderly health. Turkey, like many other countries, faces escalating concerns regarding elderly suicide, particularly attributed to untreated depression. This study seeks to explore the suicide risk among the elderly and its associated factors.

**METHODS:** In this retrospective analysis, the records of patients aged 60 years and older admitted to the Department of Psychiatry, Faculty of Medicine, Selçuk University, between January 2020 and March 2024 were analysed. Thirty-two of these admissions were made due to suicide risk. Ethics committee was applied.

**RESULTS:** This study focused on 32 elderly inpatients at risk of suicide, with a majority (56.3%) being male and a median age of 66.5. The average hospital stay was approximately 2.22 times, with depressive disorders (37.5%) being the most common diagnosis, followed by psychotic (18.8%) and anxiety disorders (15.6%). A significant number (71.9%) had no other psychiatric conditions, though some presented with anxiety (15.6%), depression (6.3%), bipolar disorder (3.1%), or behavior disorders (3.1%). Over half were smokers (56.3%), a minority used alcohol (12.5%), and one patient had psychoactive substance use. A considerable portion (53.1%) were unmarried, and 78.1% suffered from additional medical conditions.

**CONCLUSIONS:** Studies have shown that mental illnesses, especially depression, significantly increase the risk of suicide in the elderly. It is emphasised that supporting elderly individuals struggling with physical dependence and depression is effective in preventing suicide. In our study, it was observed that the diagnosis of depression and the presence of additional psychiatric conditions and other medical conditions were important factors in terms of suicide risk in the elderly, but it should be kept in mind that more comprehensive studies are needed.

**Keywords:** elderly, suicid, depression

## THE RELATIONSHIP BETWEEN DEPRESSION AND BURNOUT LEVELS OF PHYSICIANS AND THE PROBABILITY OF SUICIDE IN TÜRKİYE

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**BACKGROUND AND AIM:** The aim of this study was to investigate the relationship between suicide probability and sociodemographic variables, depressive symptoms and burnout level in physicians.

**METHODS:** An online survey was created and participants were reached through the snowball sampling method. Data were collected with the sociodemographic data form, the suicide probability scale (SPS), the Beck depression inventory (BDI) and the Maslach burnout inventory (MBI). The approval of the ethics committee was obtained from the Toros University Scientific Research Ethics Committee with the date 21.03.2024 and number 62.

**RESULTS:** One hundred sixteen physicians participated in the study. The mean age was 35.33±6.78 years. 76 (65.5%) were female and 92 (79.3%) were specialists. 79 (68.19%) of them were working in internal units and 37 (31.9%) of them were working in surgical units. 25 (21.6%) physicians scored 17 points or more in the BDI. The SPS scores of male physicians, physicians who stated that they received psychiatric treatment, and physicians who smoked were higher ( $p<0.05$ ). A significant correlation was found between SPS scores and BDI and MBI subscales ( $p<0.01$ ). As the degree of satisfaction with the profession decreased, the scores of SPS, BDI and MBI increased ( $p<0.01$ ). In the effect of burnout level on suicide probability, depressive symptoms were found to be a full mediator in depersonalization and emotional burnout, and a partial mediator in personal achievement burnout.

**CONCLUSIONS:** Depression and suicide in physicians are not uncommon conditions. The fact that burnout increases the probability of suicide due to the mediating effect of depressive symptoms reveals that new measures should be taken to reduce burnout in physicians. Measures to protect physicians from depression should be increased, and new strategies should be developed for the treatment and follow-up of depressed physicians.

**Keywords:** burnout, depression, physician, suicide

## EXAMINING THE RELATIONSHIP BETWEEN FEAR OF MISSING OUT FOMO, SOCIAL MEDIA ADDICTION, AND PERSONALITY TRAITS

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**BACKGROUND AND AIM:** Fear of Missing Out (FOMO) has become an increasing concern with the proliferation of social media usage. Many individuals feel the constant need to check social media platforms, which can escalate into addiction. Individuals experiencing FOMO tend to constantly monitor others' posts, participate in social events, and keep themselves updated. This study aims to determine the relationship between FOMO, social media addiction, and personality traits

**METHODS:** Participants aged 18-65 completed sociodemographic information, the FOMO scale, the Bergen Social Media Addiction scale, and the Ten-Item Personality Inventory via Google Forms. The personality subtypes of the Ten-Item Personality Inventory are Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience. Approval was obtained from the Sivas Cumhuriyet University Non-Interventional Clinical Ethics Committee under number 2024-02/61.

**RESULTS:** A total of 405 individuals participated in our study, with 250 females (61.7%) and 155 males (38.2%). The majority of participants (59.2%) were married. University graduates (85.9%) predominated among the participants. Most participants (83.7%) had an income level above the minimum wage. Psychiatric disorders were present in 6.5% of participants, and physical illness was present in 10.4%. A significant relationship was found between FOMO score and Bergen Social Media Addiction score ( $p<0.05$ ) and Emotional Stability score ( $p<0.01$ ). Regression analysis revealed that social media addiction and emotional stability explained 34% of FOMO. A one-unit increase in FOMO score increased social media score by 0.459 units and emotional stability score by 0.225 units.

**CONCLUSIONS:** Comparisons revealed a significant relationship between FOMO score, total score of Bergen Social Media Addiction, and Emotional Stability score from the Ten-Item Personality Inventory. Due to FOMO being a relatively new concept, studies on this topic in the literature are limited. Future large-scale studies can provide more meaningful results regarding this relationship.

**Keywords:** emotional stability, fear of missing out, FOMO, personality traits, social media addiction

## RETROSPECTIVE EVALUATION OF ELECTROCONVULSIVE THERAPY USE IN PATIENTS WITH SCHIZOPHRENIA AND SCHIZOPHRENIA-LIKE PSYCHOTIC DISORDER

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**BACKGROUND AND AIM:** Electroconvulsive therapy (ECT) is one of the methods used for treatment in patients with schizophrenia. It is reported to be especially effective in combination with pharmacotherapy in schizophrenia patients with catatonia, aggression or suicidal behavior and in patients whose acute symptomatology needs to be reduced. We aimed to retrospectively evaluate the use of ECT in patients with schizophrenia and schizophrenia-like psychotic disorder according to sociodemographic and clinical data as like gender, long-acting antipsychotic use and age at first psychotic episode.

**METHODS:** The study was conducted in the Psychotic Disorders Outpatient Clinic of the Psychiatry Clinic of Selçuk University Faculty of Medicine. Sociodemographic and clinical data obtained from "Psychotic Disorders - Treatment Monitoring Protocol" of Psychotic Disorders Outpatient Clinic. Selçuk University ethics committee approval has been applied (223/24).

**RESULTS:** A total of 143 patients were evaluated in the study. Data of 119 patients used for analysis. 35 of 119 patients (29.4%) had received ECT treatment throughout their illness. Of the patients, 49 (41.2%) were female and 70 (58.8%) were male. The mean age of the patients was  $40.19 \pm 12.01$  years. There was a significant difference between ECT applications between male ( $n=14$ , 20% of male) and female ( $n=21$ , 42.9% of female) patients ( $p=0.007$ ). The rate of ECT application was significantly higher in patients using long-acting antipsychotics ( $n=23$ , 65.7%, ECT+ and LAI +) compared to non-users ( $n=12$ , 34.3%, ECT+ and LAI -), ( $p=0,023$ ). There was a significant difference between the age of the first psychotic episode and whether ECT was applied or not (ECT "+"  $22.16 \pm 5.77$  vs ECT "-"  $25.43 \pm 7.15$ ,  $p=0,024$ ).

**CONCLUSIONS:** Our study aimed to investigate the use of ECT according to sociodemographic and clinical data as like gender, long-acting antipsychotic use and age at first psychotic episode and found a significant difference in these values. ECT causes neurological changes such as dysregulation of presynaptic dopamine release in patients whose psychosis is not adequately treated. It is pointed in literature ECT can be considered earlier in treatment-decision algorithms and may offer a reduction in episode duration. Therefore, It should be used not only in cases such as agitation but also for treatment of patients for many purposes.

**Keywords:** electroconvulsive therapy, psychosis, schizophrenia

## THE RELATIONSHIP OF CHRONOTYPE AND IRRITABILITY LEVELS WITH SUICIDE ATTEMPTS IN ADOLESCENTS

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**BACKGROUND AND AIM:** Suicide is a common cause for adolescent emergency department visits. Understanding and preventing the underlying causes of these attempts is crucial for supporting adolescents' healthy development. This study aimed to investigate the relationship between suicidal behavior and chronotype and irritability levels among adolescents admitted for suicide attempts.

**METHODS:** The study included 117 cases aged 12-17, without psychiatric illness, admitted to the Pediatric Emergency Department of Selçuk University Faculty of Medicine Hospital after a suicide attempt, and 118 healthy controls without psychiatric illness, attending the child psychiatry outpatient clinic for counseling. The study sample underwent assessments using the Affective disorders and schizophrenia interview schedule for school-age children-now and lifetime version (K-SADS-PL), Morningness-Eveningness Questionnaire (MEQ) and Affective Reactivity Index (ARI). Approval was obtained from the local ethics committee of Selçuk University.

**RESULTS:** There were no significant age ( $t=0.331$ ,  $p=0.741$ ) or gender ( $\chi^2=0.215$ ,  $p=0.265$ ) differences between groups. The case group comprised 96 girls and 21 boys, while the control group had 89 girls and 29 boys. Mean ages were  $14.86\pm 1.14$  for cases and  $14.93\pm 1.94$  for controls. Mean MEQ scores were  $35.08\pm 3.37$  for cases and  $32.39\pm 3.61$  for controls. Self-reported irritability scores were  $7.64\pm 2.88$  for cases and  $2.44\pm 2.70$  for controls. Parent-reported irritability scores were  $7.88\pm 3.52$  in the cases and  $2.52\pm 2.63$  in the controls. According to the results, significant differences were found in chronotype and irritability levels between adolescents who attempted suicide and controls ( $p<0.001$ ). There was a correlation between irritability levels and chronotype scores in the case group ( $r=0.417$ ,  $p<0.001$ ;  $r=0.323$ ,  $p<0.001$ ).

**CONCLUSIONS:** This study highlights a significant relationship between chronotype, irritability scores, and suicide attempts in adolescents. The findings suggest that evening-type adolescents with higher irritability levels are at increased risk for suicide attempts, emphasizing the potential impact of these variables on adolescent mental health. These findings could inform interventions aimed at preventing suicide attempts in adolescents.

**Keywords:** adolescent, chronotype, irritability, suicide

## EVALUATION OF SUICIDAL BEHAVIOUR IN PATIENTS WITH SCHIZOPHRENIA AND SIMILAR PSYCHOTIC DISORDERS

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**BACKGROUND AND AIM:** Schizophrenia is a psychiatric disorder characterised by chronic or recurrent psychotic symptoms with impairment in social and occupational functioning. Suicide rates in schizophrenia patients have increased 20-50 times compared to the normal population. High suicide rates reveal the necessity of identifying risky individuals. In our study, we aimed to evaluate suicidal behaviour and suicide-related factors in patients with schizophrenia and similar psychotic disorders.

**METHODS:** The sample of the present study consisted of patients with schizophrenia and schizophrenia like psychotic disorders who were followed up in the psychotic disorders outpatient clinic of Selçuk University Faculty of Medicine Hospital, Psychiatry Department. Patients were identified by retrospective file search and those with sufficient information about suicide in their files were included. Suicide Probability Scale (SPS) and The Positive and Negative Syndrome Scale (PANSS) scores obtained from files. The research was submitted to the approval of the ethics committee of Selçuk University Faculty of Medicine (222/24).

**RESULTS:** 30 (28%) of 104 patients were found to have attempted suicide. 12 (40%) of 30 patients were female, 18 (60%) were male and the mean age was  $38.57\pm 9.67$  years. There was no significant difference between male and female gender in terms of suicide attempt. There was a negative correlation between the SPS and PANSS-N score ( $r= - 0.34$ ,  $p<0.001$ ), between the SPS and PANSS-G score ( $r= - 0.2$ ,  $p=0.04$ ); between the SPS and PANSS-T score ( $r= -0.26$ ,  $p= 0.007$ ). No correlation was detected between the SPS and PANSS-P scores. There was a positive correlation between the SPS and Beck Anxiety Scale scores ( $r=0.307$ ,  $p=0.001$ ).

**CONCLUSIONS:** Studies have shown that 25-50% of patients with schizophrenia attempt suicide at least once in their lifetime. In our study, we obtained a result close to this result with a suicide rate of 28.8%. In our study, there was no significant difference between suicide attempt and the number of hospitalisations, the time without treatment and the presence of suicide attempt in the family. The negative correlation between PANNS-N/G/T scores and SPS scores was thought to be related to the fact that suicide attempts were more common during the remission period. As pointed in literature we should pay more attention for the patients with schizophrenia, especially in remission periods.

**Keywords:** suicide attempt, schizophrenia, psychotic disorder

## TRANSCRANIAL MAGNETIC STIMULATION IN THE TREATMENT OF MAJOR DEPRESSIVE DISORDER: A NATURALISTIC RETROSPECTIVE STUDY

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**BACKGROUND AND AIM:** Repetitive Transcranial Magnetic Stimulation (rTMS) is a non-invasive treatment method that modulates neural activity by targeting different brain regions through magnetic stimuli. It's used in cases of treatment-resistant major depressive disorder. There is limited data concerning its use in Turkey. Our study aims to evaluate the effect of rTMS treatment on symptom severity in treatment-resistant major depressive disorder.

**METHODS:** The study examined routinely collected data of 186 patients aged 18-65 years diagnosed with treatment-resistant major depressive disorder who received at least 20 rTMS treatment. Primer outcome measures was Hamilton Depression Rating Scale (HAM-D).

The data were analyzed using SPSS. Descriptive statistical methods were employed to analyze patients' age, gender, and marital status information. Changes in depression scales before and after treatment were compared using Dependent t-tests/Wilcoxon tests. (Ethical approval number: 2024-435 Date: 12 March 2024)

**RESULTS:** A total of 186 patients, 65.1% (121 individuals) were female and 34.6% (65 individuals) were male. The distribution of patients by age group was as follows 8.6% (16 individuals) in the 18-30 ages, 80.1% (149 individuals) in the 30-50 ages, and 11.3% (21 individuals) in the 50-65 ages. While 21.5% had a previous history of TMS, % 78.5 of the patients had no history. No gender and age groups differences were observed in treatment response. The mean HAMD score before treatment was found to be 21.08, whereas the mean HAMD score after treatment was found to be 12.78 ( $p < 0.01$ ). It was found that in 74 patients (39.8%) the decrease in scale score was more than 50%, in 50 patients (26.9%) between 25% and 50%, and in 62 patients (33.3%) was less than 25%.

**CONCLUSIONS:** In our study, we found a decrease in the patients' scales at a rate similar to other studies. Further studies are needed to identify factors predictive of treatment response.

**Keywords:** major depression, naturalistic, response, rTMS

## EVALUATING THE TOLERABILITY OF TWO-INJECTION START REGIMEN OF LONG-ACTING ARIPIPRAZOLE: A PRELIMINARY STUDY

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**BACKGROUND AND AIM:** The two-injection start regimen of aripiprazole (TIS) is chosen due to its ability to achieve therapeutic levels on the first day and the subsequent lack of need for oral administration after the initial injection. In this preliminary study, we aimed to investigate the adverse event profile, its impact on treatment, and its severity over a three-month period in patients who preferred TIS in our clinic.

**METHODS:** The data in our study were obtained through a retrospective evaluation of the records of all patients who received TIS and were hospitalized in the psychiatry clinic. The evaluations of the UKU Side Effect Rating Scale and the Barnes Akathisia Rating Scale, which were conducted during the first week, first month, and third month of follow-up, were recorded. Ethical approval has been obtained.

**RESULTS:** The data of thirteen participants who received the start regimen were evaluated. Despite adverse events being observed in 90.9% of patients ( $n=10$ ) who used TIS during the following three-month period, it was noted that 72.7% of patients ( $n=8$ ) did not switch medication due to adverse events. It was demonstrated that the BARS score in the first month (median: 8.0, IQR: 14.0) increased compared to the first week. It was also demonstrated that the score in the third month decreased compared to the first week. It was observed that the UKU score in the first month (median: 14.0, IQR: 25.7) increased compared to the score in the first week (median: 48.0, IQR: 64.5). However, the score in the third month significantly decreased compared to the first month ( $p < 0.05$ ).

**CONCLUSIONS:** We observed that incidence of adverse events tended to increase in the first month and decrease in the third month after treatment. There were limitation to our study, including its retrospective nature and the small sample size. However, these results are consistent with the existing literature, and there is a need for larger studies to obtain more generalizable results.

**Keywords:** adverse event, aripiprazole, two-injection start regimen



## INVESTIGATION OF DIAGNOSIS AND TREATMENT OF MEDICAL FACULTY STUDENTS PRESENTING TO A UNIVERSITY HOSPITAL PSYCHIATRY OUTPATIENT CLINIC

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**BACKGROUND AND AIM:** Mental disorders are required careful evaluation due to high prevalence, potential for chronicity, and decreased functionality, and societal burden. Common stress factors among medical students include academic performance anxiety, clinical responsibilities. Both stressors and the age of onset of mental disorders create a vulnerability for medical students. We aimed to retrospectively investigate the distribution of mental disorder diagnoses and recommended treatments among medical students.

**METHODS:** The sample of the study consists of medical students who admitted to the Psychiatry Outpatient Clinics of Çukurova University Faculty of Medicine between 01.01.2022-29.02.2024. Sociodemographic and clinical data form created by researchers was administered to the participants, and any differences between genders regarding the age of onset, clinical characteristics, and sociodemographic features of mental disorders were investigated. Approval has been obtained from the Ethics Committee (08.03.2024/50).

**RESULTS:** Total of 104 medical students were examined in outpatient clinic. The majority of the patients were female 59.6% (n=62), with a mean age of  $22.32 \pm 1.93$ . Of the students, 40.4% (n=42) were diagnosed with anxiety disorders, 29.8% (n=31) with major depressive disorder, 12.5% (n=13) with attention deficit hyperactivity disorder, 8.7% (n=9) with obsessive-compulsive disorder, 2.9% (n=3) with bipolar disorder, 2.9% (n=3) with impulse control disorder, 1.9% (n=2) with schizophrenia, and 1% (n=1) with eating disorders. The rate of grade retention was 19.2% (n=20). Outpatient clinic visits were most commonly observed in the sixth year of their education, accounting for 27.9% (n=29) of cases.

**CONCLUSIONS:** We observed that medical students were most commonly diagnosed with anxiety disorders and major depressive disorder. Factors such as increased workload among final-year students and post-graduation professional anxieties may contribute to the increased seeking of psychiatric assistance. Another noteworthy finding in our study was the high rate of grade retention among medical students seeking psychiatric care. In light of these findings, there is a need for psychosocial support programs targeting medical students, considering the risks associated with medical education.

**Keywords:** medical faculty, mental disorders, students

## POSTER PRESENTATIONS



PP-01

## SUBSTANCE ABUSE IN A FEMALE PATIENT PRESENTING WITH LATE ONSET PSYCHOTIC SYMPTOMS: A CASE REPORT

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**OBJECTIVE:** Substance use is a frequently accompanying problem in patients presenting with psychotic symptoms. Substance use may lead to psychotic symptoms and comorbidity of substance use disorder is high in patients diagnosed with psychotic disorder. While its prevalence is 17.3% in the age range of 18-29 years, it is 3.4% above the age of 65 years. Substance use is approximately two times higher in men than in women. Substance use in elderly and female patients is frequently neglected. Our study highlights the importance of considering substance abuse history, often concealed by older adults and women, in the literature.

**CASE:** A 52-year-old woman was brought to the emergency department by the police after escaping her home and spending the night outside. She exhibited psychotic features and aggressive behavior, leading to her compulsory admission for further evaluation and treatment. It was noted that she had been hospitalized for psychotic symptoms two years ago and had been receiving ongoing outpatient care and treatment since then. However, she had discontinued her medication for the past two weeks. According to history provided by relatives, she was known for having antisocial traits, and she recently began a relationship with a drug-trafficking acquaintance. During her admission, she attempted to manipulate the urine test results on two occasions by consuming excessive fluids, which raised concerns and heightened suspicion of substance abuse. Following her treatment, she was discharged with partial remission. Informed consent was obtained from the patient and her relatives.

**DISCUSSION:** A history of substance use should be questioned in all psychiatric admissions as it may have an impact on evaluations. It should be kept in mind that patients and their relatives may provide false information. It is crucial to determine whether psychotic disorders are substance-related, especially in late adulthood and old age, to provide appropriate counseling and treatment services for patients.

**Keywords:** psychosis, late-onset, substance use

PP-02

## NON-EPILEPTIC PSYCHOGENIC SEIZURE AND SEXUAL TRAUMA: CASE PRESENTATION

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**OBJECTIVE:** Non-epileptic-psychogenic-seizures (NEPS) are identified through neurological and psychiatric evaluations. Our case, who has been under the follow-up of the neurology clinic with a diagnosis of epilepsy for seven years, was considered for NEPS during the follow-ups. After a psychiatric consultation, history of childhood sexual abuse was revealed. It is noteworthy that our case draws attention to the frequent occurrence of childhood traumas in psychiatric terms among individuals with NEPS.

**CASE:** A 28-year-old unmarried woman living with her family has a history of fainting and accompanying seizures since childhood. There have been several psychiatric referrals at the request of the family. It was learned that she had emergency and neurology visits since 2014, and neurology outpatient follow-up was recommended with the preliminary diagnosis of epilepsy, but she did not have regular outpatient clinic visits. Over the last 4 years, with increasing and changing symptoms, she was admitted to the neurology clinic for differential diagnosis between epilepsy and NEPS. Considering the variability of symptoms and lack of support for an epilepsy diagnosis in the investigations, she was consulted to us for the possibility of NEPS with a psychiatric etiology. Psychiatric evaluations revealed a history of childhood sexual abuse. Medical information has been obtained with consent from the case for scientific purposes.

**DISCUSSION:** Individuals with NEPS often face a dilemma due to their belief that trauma stories frequently encountered in such cases are unspeakable or not easily shareable. It is reported in the literature that this situation may present with various symptoms, such as the experience of re-experiencing seizures or the consciousness turning off itself with an automatic reaction to disturbing memories. In treatment, it is essential to focus on factors triggering seizures by providing psychotherapeutic support, enabling patients to enhance their communication and expression skills for accurate emotional articulation.

**Keywords:** seizure, sexual trauma, epilepsy

## POST-INFECTION NEUROLEPTIC MALIGNANT SYNDROME: A CASE REPORT

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**OBJECTIVE:** Neuroleptic malignant syndrome (NMS) is a serious complication often associated with antipsychotic medications. Our case report aims to provide information about the clinical presentation and treatment process of NMS that occurred after a lung infection in a patient with schizophrenia, who is currently under control with medication and undergoing regular follow-ups.

**CASE:** A 50-year-old male patient diagnosed with schizophrenia for approximately 30 years, had been receiving Clozapine treatment since 2010, and was being followed in partial remission with oral and depot antipsychotic treatment. It was learned that the patient applied to the emergency service due to a general condition deterioration following a lung infection, and the patient was discharged after treatment adjustment. However, following discharge, the patient experienced difficulties in walking, sleep problems, fever, and loss of consciousness, leading to another visit to the emergency service. In examination, neck stiffness, a fever of 41.2°C, bilateral tremor, bradykinesia, bradymimia, hypophonia, and elevated WBC and CRP levels were detected. After evaluation by the infectious diseases and neurology clinics, central nervous system infection was ruled out, and the patient was referred to our clinic with a preliminary diagnosis of NMS. Following the rapid increase of creatine kinase (CK) to 5400 U/L and the detection of rigidity in the extremities, the patient was diagnosed with NMS and admitted to intensive care unit. Consent for the use of medical information for scientific purposes was obtained from the patient and his legal guardian.

**DISCUSSION:** Apart from psychiatry clinics, physicians working in neurology, infection and emergency medicine clinics should persistently question the use of neuroleptic drugs, especially in patients presenting with fever and confusion, and keep the diagnosis of NMS in mind. For the treatment, intensive care conditions should be preferred for close monitoring of abnormal autonomic dysfunction, respiratory distress due to rigidity, and hemodynamic instability.

**Keywords:** rigidity, antipsychotic, neuroleptic malignant syndrome

## AN ANTI-NMDA RECEPTOR ENCEPHALITIS FOLLOWED CONSIDERING CONVERSION DISORDER: A CASE REPORT

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**OBJECTIVE:** Anti-N-methyl-D-aspartate (Anti-NMDA) receptor encephalitis is the most characteristic autoimmune encephalitis syndrome, manifesting with acute or subacute onset, accompanied by neuropsychiatric symptoms. It is characterized by epileptic seizures, autonomic dysfunction, movement disorders, and behavioral changes. This case report aims to discuss key considerations in the clinical management, from the initial diagnosis of conversion disorder to the subsequent diagnosis of Anti-NMDA receptor encephalitis during follow-up.

**CASE:** The 17-year-old female case, with a known diagnosis of epilepsy, had contractions first in her legs and then in various parts of her body in the last month. No pathology was detected as a result of laboratory and imaging tests performed during her hospitalization. As the contractions in her legs continued during follow-up, conversion disorder was considered and she was discharged. Post-discharge, the patient developed a speech disorder, constantly pointed to the right side of her head, and exhibited a refusal to eat, prompting admission to the pediatric neurology clinic. Despite initial considerations of conversion disorder by child psychiatry clinic, consecutive evaluations by us could not definitively rule out organic pathologies. Upon re-evaluation for encephalitis, the patient received a diagnosis of Anti-NMDA receptor encephalitis after the CSF limbic encephalitis panel performed. Consent for the use of medical information for scientific purposes was obtained from the patient and her legal guardian.

**DISCUSSION:** This case presents a female initially deemed to have conversion disorder due to prolonged contractions and vague complaints. Although the clinical symptoms, recurrent seizures, and the absence of any pathology in routine tests suggest conversion disorder psychiatrically, the medical history and the progressive nature of the symptoms indicate that organic pathologies have not been adequately ruled out. Consequently, autoimmune encephalitis (or autoimmune encephalopathies) diagnoses should be considered in similar presentations, and autoimmune antibody tests should be performed.

**Keywords:** anti-NMDA receptor antibody, autoimmune encephalitis, conversion



## A CASE OF 'SOMATIC SYMPTOM DISORDER' AFTER COVID-19 INFECTION

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**OBJECTIVE:** Somatic symptom disorder is a psychiatric presentation in which the patient thinks that he/she has a severe illness, experiences high levels of anxiety related to this, and experiences extremes in health-related behaviors. In this study, we aimed to present a case diagnosed with "Somatic Symptom Disorder" after COVID-19 infection.

**CASE:** 51-year-old, single, male patient was referred to psychiatry outpatient clinic on the recommendation of his pulmonologist because of repeated outpatient visits. The patient's history revealed that he had no previous psychiatric complaints. It was learned that his first psychiatric complaints started in 2021 after a COVID-19 infection and he was worried that he would be infected with the disease and felt the need to give a COVID test every day. It is understood that the patient was concerned that he was infected with COVID-19 infection and therefore had repeated pulmonology outpatient clinic applications with somatic complaints in the form of shortness of breath, heart palpitations, headache; after the examinations, he was consulted to the psychiatry outpatient clinic, antidepressant treatments were prescribed to the patient during the psychiatric follow-up process but he repeated pulmonology outpatient clinic applications continued, so he applied to us. It was observed that the patient developed somatic symptoms related to different systems during his hospitalization and it was observed that he received high scores from the somatic symptom scale. Psychometric examinations and observations in our clinic revealed that the patient was compatible with 'Somatic Symptom Disorder'. Patient discharged with fluoxetine 60 mg/day and aripiprazole 5 mg/day treatment. Consent for case report was obtained from the patient.

**DISCUSSION:** Study presents an important case report on somatic symptom disorder after COVID-19 infection. As result, it should be emphasized that somatic symptom disorder after COVID-19 should be evaluated with a multidisciplinary approach.

**Keywords:** antidepressant treatment, COVID-19, somatic symptom disorder

## ORGANIC PSYCHOSIS: FAHR SYNDROME

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**OBJECTIVE:** Idiopathic basal ganglia calcification [IBGC], also known as Fahr syndrome, is a neurodegenerative disorder characterized by neurological-psychiatric symptoms and diffuse bilateral calcification of the basal ganglia. Psychiatric symptoms are within the wide spectrum of symptoms which range from mild depression and anxiety to psychotic symptoms. In this case report, we present a patient who suffered from neurologic symptoms in his childhood and psychiatric symptoms in his adulthood. Aim of the study is to draw attention to the importance of ruling out other organic causes which may cause psychotic symptoms before diagnosing "Schizophrenia" in the presence of psychotic symptoms.

**CASE:** U.D. was a 36-year-old male patient; high school graduate, working in his father's hairdresser. It was learned that he had been followed up with a diagnosis of schizophrenia for 10 years, his last treatment was clozapine 400 mg/day and his complaints increased after treatment non-compliance. On examination; He described auditory and visual hallucinations in the perceptual field. Tangentiality and derailments were present in the thought process. He had persecutory delusions in thought content. Brain CT imaging showed calcifications involving bilateral basal ganglia. Necessary tests were ordered to investigate the etiology of the calcifications. The most common gene mutation; SLC20A2 panel was ordered. Consent has been obtained from participant

**DISCUSSION:** Fahr's syndrome is a neurodegenerative disorder with a variety of clinical manifestations and may be caused due to many different causes. In the reviewed cases of Fahr's syndrome, neurology admissions and hypoparathyroidism are common, but there are few psychiatric admissions. In our case, the presence of calcifications bilaterally in the basal ganglia, the coexistence of neurologic and psychiatric symptoms, and psychotic features consistent with the literature lead us to consider diagnosing Fahr syndrome in this case. We strongly believe that especially in cases with neuroimaging findings, pathologies such as Fahr syndrome should be considered in the differential diagnosis of organic psychosis and non-organic psychosis.

**Keywords:** Fahr, organic, psychosis, syndrome

## PAROXETINE-INDUCED URTICARIA: A CASE REPORT

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**OBJECTIVE:** Paroxetine is a selective serotonin reuptake inhibitor (SSRI), and it has a favorable adverse effect profile. Here we report a 40 year old male patient with panic disorder who developed urticarial reaction following administration of paroxetine.

**CASE:** 40 year old male presented to our clinic with attacks of sweating, tremor, palpitations, fear of having myocardial infarction and dizziness many times during the last three months.. The patient diagnosed with panic disorders according to the DSM 5 psychiatric diagnosis criteria, and he was prescribed 10 mg Paroxetine daily. In the second day of the treatment, the patient presented to our clinic with itch and redness in his body following administration of paroxetine. The patient told that his symptoms developed after 4 hours of drug administration. and his symptoms resolved spontaneously in a few hours. The patient evaluated and consulted to the dermatology clinic. He was diagnosed as urticaria. The patient consent was provided.

**DISCUSSION:** Paroxetine is an anti-depressant which can be used in the treatment of many psychiatric diseases. It is reported in the literature that SSRI's can cause a variety of cutaneous adverse effect. Urticaria is a skin reaction characterized with erythematous and edematous papules and plaques. If it resolves before six weeks, it is classified as acute urticaria. And if the disease exist after six weeks it is called chronic urticaria. When edema affects lower dermis and submucosal area especially in the mucous membranes it is defined as angioedema. In acute urticaria, lesions resolves in twenty four hours. Urticaria is a dermatological disease causing serious deterioration in quality of life. Since drugs are one of the main triggering factors of urticaria and paroxetine can induce skin reactions including urticaria, the physicians should be careful in patients whom they prescribed paroxetine for any signs of skin reaction.

**Keywords:** paroxetine, urticaria, side effect

## THE IMPORTANCE OF UNDERLYING MEDICAL PATHOLOGY IN THE DIFFERENTIAL DIAGNOSIS OF TREATMENT RESISTANT DEPRESSION; DEPRESSION AND HEPATOCELLULAR CARCINOMA

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**OBJECTIVE:** Depression is not only a common mental disorder, but also a serious health problem due to the disability, individual and social costs it causes. Physical complaints are quite common in depressive disorders and may occur simultaneously with or following a physical illness. In our case we aimed to emphasize the importance of investigating the general medical condition of patients in the differential diagnosis of depression that does not respond to treatment.

**CASE:** A 67-year-old male farmer presented to our outpatient clinic with complaints of unhappiness and insomnia. It was found that the patient developed depressive complaints 1 year ago, made psychiatric applications to different hospitals and didn't respond to various drug treatments. On psychiatric examination, the patient's mood was depressed, and attention and memory deficits were present. A treatment protocol of venlafaxine 75 mg/day, olanzapine 2.5 mg/day and alprazolam 0.5 mg 3x1/2 was initiated for depression. Since the laboratory tests showed the patient's Hbg value as 19.4 g/dL and hepatomegaly was found on examination an internal medicine consultation was requested considering the differential diagnosis of primary polycythemia. The HbsAg (+) and AFP value was found to be 7028 ng/mL in the additional tests performed on the patient. Further testing led to the diagnosis of hepatocellular carcinoma (HCC). The patient and his relatives were informed and referred to the oncology department.

**DISCUSSION:** In our case our patient was hospitalized due to depressive complaints that did not regress despite the administration of an appropriate dose and duration of antidepressant treatments, hence depression due to general medical condition was considered in the differential diagnosis which finally made the diagnosis of HCC possible. Through the presentation of this case, it is emphasized that investigating underlying medical pathologies in the differential diagnosis of resistant depression is crucial for early diagnosis and treatment

**Keywords:** hepatocellular cancer, medical pathology, treatment resistant depression

## LAMOTRIGINE-INDUCED STEVENS-JOHNSON SYNDROME, CASE REPORT

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**OBJECTIVE:** Stevens-johnson syndrome (Sjs) is a rare life-threatening condition characterized by severe mucocutaneous epidermal necrolysis. Sjs is a rare but severe side effect of many commonly administered drugs. In this case, we report a case of sjs due to lamotrigine.

**CASE:** Consent was obtained from the patient for the case report. 42 years old, female, married, with 3 children, was admitted to psychiatry 4 years ago with depressive complaints. Duloxetine 60 mg/day treatment started and used for 3 years. 3 months ago, the patient's depressive complaints increased and lamotrigine 25 mg/day was added to the treatment at the external centre and dose increase was planned at 5-day intervals. 2 days after the dose of lamotrigine was increased to 100 mg/day, lamotrigine use was discontinued by the psychiatrist considering drug-related reaction since the patient had rash and pruritus on her body. The rashes continued to increase for 2 weeks after the drug was discontinued. She was admitted to the dermatology clinic of our hospital with the diagnosis of Sjs. The patient consulted to us, her mood was depressed (Hamd: 18). Although lamotrigine was considered to be the most likely main culprit drug from the existing anamnesis (Ad Probability Scale: 6), all medications were discontinued. At the end of 3 weeks, dermatological treatment was completed and psychiatric treatment was gradually restarted. The depressive complaints of the patient, who continued outpatient follow-up with duloxetine 90 mg/day, regressed (Hamd: 6) and no new rash was observed.

**DISCUSSION:** In our case, the rashes that started with the use of lamotrigine did not regress after stopping the treatment and continued to progress. Clinicians working in the field should be aware that skin rashes that develop with the use of lamotrigine may progress to sjs despite discontinuation of the drug, and that the patient must be closely followed.

**Keywords:** case report, drugs, etiologies, lamotrigine, Stevens-johnson syndrome

## CAN A NEW PROTOCOL BE DEVELOPED AS A COMBINATION OF TRANSCRANIAL MAGNETIC STIMULATION AND ELECTROCONVULSIVE THERAPY? CASE REPORT: AN 83-YEAR-OLD PATIENT WITH SEVERE DEPRESSIVE DISORDER

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**OBJECTIVE:** Electroconvulsive therapy (ECT) can be life-saving in geriatric depressed patients, but its cognitive side effects pose a significant problem. On the other hand, transcranial magnetic stimulation (TMS), a non-invasive treatment method used in depression in recent years, shows positive cognitive effects on patients with depression. In this report, we aim to present the combination of TMS and ECT in a depressed geriatric patient with a prediagnosis of dementia.

**CASE:** An 83-year-old woman presented to the outpatient clinic with anhedonia, a depressed mood, refusal to eat and drink and insomnia for two months. We learned that she had a prediagnosis of dementia, but no medication was started. The patient was hospitalized in our clinic with a diagnosis of a severe depressive episode without psychotic symptoms. The Mini-Mental Test (MMT) administered on admission was 17 points. The patient's other scales showed severe depression [Hamilton Depression Rating Scale (HAM-D): 24; Montgomery Asberg Depression Rating Scale (MADRS): 41]. Sertraline 25 mg/day, Olanzapine 2.5 mg/day, and Alprazolam 0.5 mg/day were started. First, one session of ECT was administered. Afterward, two sessions per day, 18 sessions in total, were applied to the left dorsolateral prefrontal cortex intermittent theta burst stimulation protocol with a total of 600 pulses at 5 Hz. After 20 days of hospitalization, the patient was discharged with Sertraline 75 mg/day, Olanzapine 5 mg/day, and Alprazolam 0.5 mg/day. At discharge, the MMT score was 17, the HAM-D score was 3 (remission), and the MADRS score was 15 (response). The patient gave written and verbal consent for the case report.

**DISCUSSION:** In the literature review, a geriatric patient with depression was treated with 9 sessions of ECT followed by TMS and a response was obtained. Reducing the number of ECT sessions and replacing them with a new treatment protocol may eliminate the cognitive side effects of ECT. More importantly, it may be equally effective as ECT.

**Keywords:** depression, electroconvulsive therapy, geriatric, transcranial magnetic stimulation

## NEUROPSYCHIATRIC APPROACH TO THE PATIENT DIAGNOSED WITH AUTOIMMUNE ENCEPHALITIS

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**OBJECTIVE:** Autoimmune encephalitis's a group of diseases characterized by neuropsychiatric symptoms. This case report aims to emphasise that the overlap between psychiatric and neurological symptoms in autoimmune encephalitis requires a multidisciplinary approach to diagnosis and treatment (Permission was obtained from the patient for this case report.)

**CASE:** 40-year-old male, high school graduate, worker, lives in Çanakkale with his family. After status epilepticus, which started July 2023 with complaints of fever and headache, he was followed up in neurology with a preliminary diagnosis of autoimmune encephalitis. After plasmapheresis treatment, he was discharged with levetiracetam, valproic acid, topiramate and phenytoin treatment. The patient, who hadn't consulted psychiatry before, applied to our psychiatry outpatient clinic October 2023 with complaints of infantilisation, unprovoked outbursts of anger, nervousness, forgetfulness, attention problems and a decline in organisational skills. MOCA: 9/30. The patient was started on risperidone for agitation. When his agitation increased with risperidone, he was switched from risperidone to amisulpride, and his agitation decreased. As the number of epileptic seizures increased and urinary and fecal incontinence occurred during his follow-up, his psychiatric medications were discontinued, and he was referred to neurology. The patient was admitted to the emergency department of our hospital due to agitation accompanied by disorganized speech and behaviour following epileptic seizure in December 2023 and was followed up in the psychiatric ward. In addition to antiepileptic drugs, sertraline 100 mg, aripiprazole 20 mg were added to the patient, who was admitted to the psychiatric ward. Although the number of seizures he had during the day didn't change significantly, the severity of his agitation decreased.

**DISCUSSION:** Autoimmune encephalitis's accompanied by psychiatric symptoms such as psychosis, behavioral or personality changes, or neurological symptoms such as disorientation, amnesic symptoms, rapidly progressive cognitive decline, and epileptic seizures. This disorder can only occur in parallel with aggressive antiepileptic treatment responds to immunotherapy. However, very severe resistant agitation may occur. Most patients require psychotropic medications such as antipsychotics and benzodiazepines. Atypical antipsychotics should be used due to their side effects. A multidisciplinary approach's required in the treatment of autoimmune encephalitis.

**Keywords:** autoimmune encephalitis, agitation, cognitive dysfunction, neuropsychiatric approach, antipsychotics

## NALTREXONE IN TREATMENT OF COMPULSIVE BUYING-SHOPPING DISORDER: REPORT OF TWO CASES

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**OBJECTIVE:** Emil Kraepelin first mentioned the "pathological propensity to buy" in 1899 and named the phenomenon "oniomania" described as an impulse control disorder and the disorder has been characterized by excessive and uncontrolled shopping and spending, along with persistent payment delays and accumulation of debts. In this article, therapeutic effect of naltrexone was evaluated in two patients with oniomania.

**CASE:** Case 1: 32-year-old female, married with two children, works as a waitress. According to the information received from the patient, it was learned that she had been shopping excessively for about four years, her family had paid off her previously accumulated debt but her debts had accumulated again, fluoxetine (20-40 mg/day) and bupropion (150-300 mg/day) treatments were used, but the expenses increased without any hypomanic/manic symptom. The patient was initiated on naltrexone 50 mg/day treatment, after four days unnecessary shopping stopped completely and the patient was observed to be in remission for three months. Case 2: 23-year-old female, single, manager in a company. The patient was admitted due to symptoms of depression and his symptoms subsided with fluoxetine 20 mg/day treatment. During the check-up, the patient stated that she had been shopping excessively, had difficulty stopping her spendings. She had no debts because her financial status and fluoxetine treatment had no effect on this behavior. One week after naltrexone 50 mg/day treatment, the unnecessary expenses completely stopped and the patient was observed to be in remission for five months. Informed consent was obtained from the patients.

**DISCUSSION:** This article presents the therapeutic efficacy of naltrexone in treating oniomania, as observed in two patients with distinct socioeconomic backgrounds who had been afflicted with the condition for an extended period. There isn't any clinical trial testing the efficacy of opioid antagonists in compulsive buying and enough evidence. Therefore, reporting these cases is important to make a contribution to literature.

**Keywords:** naltrexone, compulsive buying-shopping disorder, oniomania

## DOSE DEPENDENT HYPERPROLACTINEMIA INDUCED BY VENLAFAXINE: A CASE REPORT

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**OBJECTIVE:** Venlafaxine is a selective serotonin and norepinephrine reuptake inhibitor, used for depression and anxiety. Prolactin elevation is observed very rarely (<1/10000) as a side effect of venlafaxine. In this article, a patient treated with venlafaxine 300 mg/day and had complaints of galactorrhea and menstrual irregularity is presented.

**CASE:** A thirty-six-year-old female patient, who had been using sertraline 50 mg/day, was admitted to the psychiatry outpatient clinic due to her depression and anhedonia. Her treatment was changed to venlafaxine 150 mg/day and the dose was increased to 300 mg/day due to the patient's ongoing complaints. After venlafaxine 300 mg/day treatment, the patient had galactorrhea and menstrual irregularity, her prolactin level was 152 ng/ml. The patient applied to the internal medicine outpatient clinic and the domperidone was thought to be the etiology which was using for stomach pain and domperidone was discontinued. Even though she stopped taking domperidone, galactorrhea had continued for eight months. She discontinued venlafaxine treatment upon the recommendation of a relative, before coming to a psychiatric check-up. When the patient had the symptoms of depression one month later, she applied to the clinic and she stated that her galactorrhea disappeared after stopping venlafaxine treatment. The prolactin level was 9 ng/ml. Informed consent was obtained from the patient.

**DISCUSSION:** Venlafaxine is essentially a selective serotonin reuptake inhibitor at 75 mg/day, with significant effects on the norepinephrine transporter at higher doses. Venlafaxine and its active metabolite (O-desmethylvenlafaxine) weakly inhibit dopamine reuptake at high doses. There are only a few cases in the literature with high prolactin levels during venlafaxine treatment. In this case, we used venlafaxine at a dose of 225 mg/day for seven months and galactorrhea or menstrual irregularity were not observed. When the dose was increased to 300 mg/day, the prolactin level increased and the hyperprolactinemia was thought to be dose dependent.

**Keywords:** venlafaxine, prolactin, galactorrhea

## SUCCESSFUL MANAGEMENT OF SEVERE DELUSIONAL PARASITOSIS WITH PALIPERIDONE PALMITATE TREATMENT: A CASE REPORT

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**OBJECTIVE:** Delusional Parasitosis, a rare psychiatric disorder, manifests as a fixed belief of being infested with parasites despite medical evidence to the contrary, classified under "Delusional Disorder, somatic subtype" in DSM-5. Patients commonly initially seek consultation from the dermatology department for cutaneous lesions. Its prevalence is less than 3 per 1000 psychiatric patients, or 40 per one million overall. In our presentation, we aimed to discuss the diagnosis and treatment of this rare disorder.

**CASE:** A 65-year-old male patient was admitted to the dermatology department with complaints of widespread itching and the thought of insect bites. The patient was referred from dermatology to psychiatry. He reported experiencing tactile and visual hallucinations, believing white insects were crawling on his body particularly on his scalp and beard that persisting for about a month. With no history of psychiatric illness, he was hospitalised with a prediagnosis of 'Delusional Parasitosis'. MRI, EEG and blood tests were normal. The patient responded noticeably to the gradually initiated risperidone treatment, titrated up to 6 mg per day. Due to incompatibility with oral treatment, paliperidone palmitate was initiated as long-acting treatment and risperidone was discontinued. His complaints subsided and his insight improved. He was discharged with complete remission in a month. Informed consent was obtained from the patient.

**DISCUSSION:** Considering literature, Delusional Parasitosis patients were treated with risperidone or paliperidone so full remission was achieved. Although studies with paliperidone are rare, it is obvious that paliperidone is promising in the treatment of Delusional Parasitosis cases. In our study, patient's psychiatric complaints showed dramatic improvement paliperidone palmitate therefore we aimed to contribute to the literature on treatment with paliperidone palmitate.

**Keywords:** delusional parasitosis, delusion, paliperidone palmitate, psychosis



## RAPID ANTISUICIDAL EFFECT OF TRANSCRANIAL MAGNETIC STIMULATION THERAPY IN MAJOR DEPRESSIVE DISORDER: A CASE REPORT

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**OBJECTIVE:** Major depressive disorder (MDD) is characterised by core symptoms including depressed mood, anhedonia and sometimes recurrent suicidal ideation. Given the significant morbidity and mortality associated with suicide in patients with MDD, there is a need to investigate rapid and effective treatment modalities. Transcranial magnetic stimulation (TMS) is an approved neuromodulation treatment for MDD. This case report discusses the rapid antisuicidal and antidepressant effects of TMS therapy in a female patient at high risk of suicide. Informed consent was obtained from the patient.

**CASE:** A 52-year-old female patient was admitted to our closed psychosis unit because of depressive symptoms for 5-6 months and suicidal plans for the past week. Treatment was arranged in the form of duloxetine 60 mg/day and trazodone 50 mg/day, which she had been taking for three months, and olanzapine 5 mg/day was added. The patient was started on TMS as she had shown a poor response to pharmacotherapy in previous follow-ups. The Hamilton Depression Rating Scale (HAM-D) score prior to TMS treatment was 21. Using the Columbia Suicide Severity Rating Scale (C-SSRS), current suicidal ideation severity was rated as 5/5, with an intensity rating of 17/25. The TMS protocol consisted of 20 sessions targeting the dorsolateral prefrontal cortex (DLPFC), delivered five days per week, with 3000 pulses per session at 120% of motor threshold intensity. By the 9th session, suicidal ideation had completely disappeared and the patient was discharged to outpatient treatment. After 20 TMS sessions, both suicidal ideation and depressive symptoms had completely resolved.

**DISCUSSION:** TMS is proving to be a safe and effective treatment option for patients with an inadequate response or intolerance to pharmacotherapy, providing rapid antisuicidal and antidepressant effects. This case highlights TMS therapy as a rapid, safe and effective treatment option for depressive symptoms and suicidal ideation.

**Keywords:** depression, suicide, transcranial magnetic stimulation

## ADULT SEPARATION ANXIETY DISORDER: A CASE REPORT

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**OBJECTIVE:** Separation anxiety is the state in which a person experiences anxiety in case of separation from the mother or attachment figure or in anticipation of separation. Separation anxiety disorder (SAD) is included in the anxiety disorders in DSM-5. Although it is accepted that SAD, which was previously defined for childhood, does not extend to adulthood and that its emergence in late adolescence is rare, in recent years, many studies have shown that the main symptoms of SAD continue or appear in adulthood. 1/3 of adults exhibiting symptoms of SAD develop them in adulthood, with adult separation anxiety resembling childhood symptoms, albeit with some minor changes due to maturation. The lifetime prevalence of adult SAD has been reported as 6.6%. There are no sufficient studies on the causes of adult SAD, clinical features, risk factors, treatment approaches.

**CASE:** In this study, a 49-year-old female patient, a housewife, mother of two children, who applied to our outpatient treatment unit accompanied by her relatives with complaints of not being able to stay at home alone, not being able to go to different places without her family, constantly wanting to stay with her children, low morale, not being able to do her job, malaise, and reluctance, is presented. After psychiatric evaluation, it was learned that the complaints of the patient, who was diagnosed with separation anxiety disorder and depressive disorder according to DSM-5 and recommended for 15 day treatment, started after his younger son went to a different province due to his job. Informed consent was obtained from the patient before the study.

**DISCUSSION:** With the diagnostic criteria that include adults in the DSM-5 diagnostic system, early detection and differentiation of adult SAD cases and risk groups can prevent disability with early and specific treatment programs. Thus, a good prognosis, faster recovery of functionality and an earlier, complication-free return to normal life can be achieved. Adult SAD remains to be investigated in many aspects that have not yet been clarified. Therefore, we believe that our study will contribute to studies in this field.

**Keywords:** adult, diagnosis, separation anxiety disorder

## SUICIDALITY AND HOMICIDALITY IN A CASE OF POSTICTAL PSYCHOSIS

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**OBJECTIVE:** The prevalence of post-seizure psychosis in individuals diagnosed with epilepsy in literature has been reported to be higher than in the general population. Postictal psychosis (PIP) is defined as a psychotic attack that occurs 24-72 hours following the epileptic seizure. Psychotic symptoms can often be observed as hallucinations, delusions, tangential speech, loosening of associations, thought blocks, disinhibition, fluctuations in affect, homicidal and suicidal behaviors. In this case report, we tried to emphasize the importance of monitoring the patients for suicidal and homicidal behaviors that may occur in PIP.

**CASE:** A 38-year-old, single, male patient was admitted to the emergency department after forensic incident with aggression, disorganized speech and behavior. The patient's complaints such as agitation, aggression, disorganized behavior, disinhibition, constant swearing, insomnia, increased psychomotor activity and homicidal behavior started after the epileptic seizure. The patient was admitted to the psychiatric clinic for further examination and treatment. The patient's history revealed that he had been diagnosed with epilepsy for 14 years, had poor antiepileptic treatment compliance that led to frequent and variable seizures. Approximately 9 months ago he had similar psychiatric symptoms and suicide attempt by jumping from a height following epileptic seizure after which he was hospitalized in a psychiatric clinic. Lab and imaging tests performed upon admission showed no organic pathology. The patient's psychotic symptoms resolved within 7 days following antiepileptic and Olanzapine 15 mg/day treatment.

**DISCUSSION:** PIP may occur during long-term follow-ups in patients diagnosed with chronic epilepsy. Along with atypical antipsychotics frequently recommended in the literature in PIP cases, the typical antipsychotics can also be prescribed. Antiepileptics doses adjustments are recommended during follow-ups in order to prevent PIP. Psychiatric consultation requests for the patients with atypical findings diagnosed with epilepsy who apply to the neurology or emergency clinic is important for early detection of suicidal and homicidal behavior risks.

**Keywords:** homicidality, postictal psychosis, suicidality

## RECURRENT SUICIDE ATTEMPTS IN A PATIENT WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE: A CASE REPORT

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**OBJECTIVE:** Chronic obstructive pulmonary disease (COPD) is characterized by bronchial obstruction and abnormal pulmonary inflammation. Depression prevalence among COPD patients is 27.1%. COPD frequently leads to impairments in daily functioning and social isolation, which contribute as risk factors for suicidal behavior. Studies have shown that chronic hypoxia itself also increases the risk of suicide. A study conducted in COPD patients reported that depression may develop due to chronic inflammation. A meta-analysis revealed that COPD patients face 1.9 times higher risk of suicide compared to individuals without COPD. Another study found that the risk of suicide is higher in women with COPD compared to men. This case report addresses recurrent suicide attempts in a COPD patient.

**CASE:** A 70-year-old woman was diagnosed with COPD for four years. Despite being recommended continuous nasal oxygen and nighttime Bilevel Positive Airway Pressure therapy, she was non-compliant with the treatment. Eight months ago, she attempted suicide by ingesting bleach and cutting her throat and chest. She was admitted to our ward for psychotic major depressive disorder treatment. Despite regular outpatient follow-ups, ten days ago, she presented to the hospital after a similar suicide attempt involving cutting her throat and abdomen. After being treated for her wounds at the surgery department, she was readmitted to the psychiatry ward with the same diagnosis. Informed consent was obtained from the patient.

**DISCUSSION:** The association between COPD and suicide has been emphasized in numerous studies, underscoring the need for mental health assessment in COPD patients. Although the relationship between COPD and suicide attempts is multifactorial, studies suggest that chronic hypoxia and biochemical factors can lead to suicide risk. These process may affect treatment outcomes. Suicide risk evaluation is critical for all physicians while managing chronic illnesses, not solely psychiatrists. This case aims to raise awareness of increased suicide risk in COPD patients.

**Keywords:** COPD, suicide, chronic hypoxia

## ALTERNATIVE TREATMENT OF DEPRESSION IN CHARCOT MARIE TOOTH DISEASE: TRANSCRANIAL MAGNETIC STIMULATION

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**OBJECTIVE:** Charcot Marie Tooth Disease (CMT) is a hereditary peripheral neuropathy characterized by disruptions in the function of myelin and axons due to genetic mutations, affecting nerves outside the spinal cord and brain, leading to sensory and motor dysfunction. In this patient group, Major Depressive Disorder (MDD) secondary to decreased physical functionality is commonly observed PMID: 36114297. We will present in this case report how a CMT patient diagnosed with MDD in our clinic was successfully treated with Transcranial Magnetic Stimulation (TMS) therapy.

**CASE:** An 18-year-old patient, previously diagnosed with CMT, presented to our clinic with depressive symptoms. From the patient's past psychiatric history, it was reported that at the age of 14, they were diagnosed with difficulty in anger control and anxiety disorder, for which Sertraline 50 mg/day treatment was initiated. Due to recurrent depressive episodes, fluoxetine 20 mg/day and mirtazapine 30 mg/day treatment was initiated, however, medication side effects developed and no adequate response was obtained. As depressive symptoms worsened and functionality declined, the patient sought evaluation at our clinic. Upon evaluation of the medication side effects and past treatment history, it was determined that the clinical presentation is consistent with recurrent depressive disorder. Therefore, it was decided to proceed with Transcranial Magnetic Stimulation (TMS) therapy. Patient was instructed on purpose and design of study and informed consent were obtained. According to the PHQ-9 scale administered before and after TMS therapy, there was an improvement of more than 50%. Additionally, the Clinical Global Impression-Improvement (CGI-I) score was evaluated as 2 post-treatment. The patient benefited from TMS therapy, showing clinical improvement in symptoms and sleep.

**DISCUSSION:** Depression and anxiety disorders are commonly observed in CMT patients due to physical limitations and the resulting decrease in quality of life. Particularly in the subset of patients with difficulties in medication use, TMS can be considered an effective and reliable alternative treatment option.

**Keywords:** Transcranial magnetic stimulation, major depressive disorder, Charcot marie tooth disease

## INFLAMMATORY SIDE EFFECTS DUE TO THE COMBINED USE OF CLOZAPINE AND VALPROIC ACID: A CASE REPORT

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**OBJECTIVE:** In this case report, we present a female patient with schizoaffective disorder with concurrent valproic acid and clozapine use, and discuss the risk of inflammation-related side effects. Informed consent was obtained from the patient for the case report.

**CASE:** A 43-year-old female with a diagnosis of schizoaffective disorder was admitted to our hospital psychotic exacerbation. Clozapine treatment was administered since there was no remission with the previous antipsychotic treatments. When clozapine treatment started, the patient was concurrently using valproic acid 1000 mg/day and blood level was measured as 95 mg/L. Clozapine dose was titrated according to the recommended dose titration schedule. Under Clozapine 200mg/day treatment, CRP was 22,3 mg/L, Troponin was 2,3 ng/L and eosinophilia were detected in the complete blood count during routine monitoring. The patient had no complaints other than weakness and fatigue. Clozapine dose titration was kept constant at 200mg/day, but no decrease was observed in daily monitoring of CRP and troponin levels. On the 3rd day after stopping the dose increase, CRP was measured as 41 mg/L and Troponin was measured as 41.3 ng/L. Acute myocarditis was not considered in cardiology consultation. Increased CRP and troponin levels was considered to be associated with inflammatory response due to combined use of valproic acid and clozapine. Since the patient's Troponin increase was more than 2-fold, clozapine treatment was terminated according to current clozapine treatment guidelines. CRP and troponin values gradually decreased after discontinuation.

**DISCUSSION:** Previous studies show that valproic acid use, obesity, underlying inflammation, female gender and genetically being a poor metabolizer accelerate clozapine-induced inflammatory processes. This case report demonstrates the importance of a personalized and detailed clozapine dose titration plan and may suggest avoiding the concomitant use of valproic acid and clozapine, which is a modifiable risk factor for inflammation-related side effects of clozapine treatment.

**Keywords:** clozapine, inflammation, valproic acid

## PSEUDOLOGIA FANTASTICA IN A PATIENT WITH ALCOHOL USE DISORDER: A CASE REPORT

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**OBJECTIVE:** Anna Freud classified childhood lies into two categories: criminal lies, driven by fear of punishment, and delusional lies known as pseudology fantastica (PF), used for denial. It is challenging to discern if PF is a delusional distortion or a deliberate deception. Patients with alcohol use disorder often feel shame and guilt due to their drinking habits, impacting their self-esteem. PF may serve as a coping mechanism to boost self-esteem. We aim to present a case of PF in a patient with an alcohol use disorder.

**CASE:** A 52-year-old married male patient was admitted to the psychiatry clinic for alcohol cessation after 38 years of alcohol use. His wife reported that he often embellished his social status, claiming to be a renowned hairdresser in Ankara with a respected reputation, while in reality, he was only an apprentice and was fired due to his drinking and aggressive behavior. The patient used suppression and denial as defense mechanisms, struggled with feelings of inferiority and insecurity, had low self-esteem, and exhibited antisocial personality traits. He displayed a grandiose attitude towards the clinic staff, had inconsistent relationships, and distorted facts. The patient had difficulty accepting reality when confronted with it.

**DISCUSSION:** PF are delusional lies that are based on reality but distorted, exaggerated, or altered. It differs from confabulation in that it is not related to memory disorder, from delusion in that the person accepts the truth when confronted with the truth, and from mythomania in that the story is told in the same way in different settings. When comorbid conditions such as alcohol use disorder, which may cause low self-esteem, are added to antisocial and borderline personality disorders, the incidence of PF may increase, so it should be evaluated carefully from a psychiatric perspective.

**Keywords:** pseudologia fantastica, alcohol use disorder, mitomania

## RAPID IMPROVEMENT WITH ACCELERATED TRANSCRANIAL MAGNETIC STIMULATION IN A DEPRESSIVE PATIENT WITH SUICIDAL THOUGHTS

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**OBJECTIVE:** Transcranial magnetic stimulation (TMS) is useful in the treatment of depression. TMS applied more than once a session daily is called accelerated TMS (aTMS). Here, we present rapid improvement with aTMS in a depressive patient with suicidal thoughts.

**CASE:** A 22-year-old man who had been followed up for four years with a diagnosis of major depressive disorder. He was admitted to the psychiatry outpatient clinic with anhedonia, lack of pleasure, insomnia, and suicidal thoughts for the last three months. He was unresponsive to escitalopram 20 mg/day, sertraline 100 mg/day, and vortioxetine 10 mg/g in his history. The last treatment was venlafaxine 75 mg/g and bupropion 300 mg/day. The treatment resistance score was 10 according to the Maudsley staging method for treatment resistance in depression. We applied bilateral stimulation (left dorsolateral prefrontal cortex iTBS 600 pulses and right dorsolateral prefrontal cortex cTBS 600 pulses) for 5 days with 5 sessions per day and 40-minute intervals for a total of 25 sessions without changing the current drug doses. No side effects were observed except for headache and numbness at the application region, which resolved without medication on the second day of treatment. Hamilton Depression Rating Scale-17 (HDRS-17) and Montgomery-Asberg Depression Rating Scale (MADRS) scores decreased from 22 and 26 points to 6 and 7 points after treatment, respectively. In monthly follow-ups, the scores remained at 3 and were evaluated as 0 points at the end of the 4th month. Suicide scores in HDRS-17 and MADRS decreased from 2 and 4 to 0, respectively. Verbal and written consent was obtained from the patient for the case report.

**DISCUSSION:** Rapid improvement in depression is very important, especially for preventing suicide. In this article, both depressive symptoms and suicidal thoughts improved rapidly in the patient treated with aTMS. We recommend that psychiatrists keep aTMS in their psychiatry toolbox.

**Keywords:** depression, suicide, accelerated transcranial magnetic stimulation

## STEROID INDUCED MANIC ATTACK IN A PATIENT WITH BIPOLAR DISORDER: CASE REPORT

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**OBJECTIVE:** Bipolar disorders (BD) are characterized by recurrent episodes of mania and depression accompanied by changes in activity or energy and associated with characteristic physical and behavioral symptoms. Corticosteroids are widely used in the treatment of various medical conditions. Psychiatric side effects are common during systemic corticosteroid therapy. The most common side effects are euphoria and hypomania. However, in patients with a predisposition to manic episodes, especially those with a previous diagnosis of BD, mania caused by extrinsic glucocorticoids is rare.

**CASE:** 20 years old, single, university student female patient. Her first psychiatric admission was at the age of 15 and she was diagnosed with BD. The patient describes a 4-year remission with treatment. Patient was diagnosed with Multiple Sclerosis (MS) one month ago and her treatment started with 5mg pulse steroid. 1 week after the steroid treatment, the patient was brought to us with the complaints of decreased sleep, and spending large amounts of money. The patient with a diagnosis of MS underwent an updated MRI, neurology found the MRI report significant in terms of demyelinating process. Mental status examination revealed disorganized associations, increased rate and amount of speech, and persecution delusions. Patient diagnosed with manic episode with psychotic features and Young Mania Rating Scale (YMRS) score was 41. We started the treatment with Olanzapine 20 mg/day, Lithium 600 mg/day, Quetiapine 600 mg/day. Paliperidone LAI 100 mg/month was added to treatment with the aim of augmentation. Her symptoms tapered off and YMRS score was calculated as 2. Consent was obtained from the patient.

**DISCUSSION:** We present a case who was followed up with Bipolar Disorder diagnosis with Multiple Sclerosis comorbidity. Her manic episode was triggered with pulse steroid. There is evidence that increased dopaminergic activity and decreased central and peripheral serotonergic secretion occur as a result of increased corticosteroid activity. Clinicians should beware the patient's psychiatric history before starting steroids.

**Keywords:** bipolar disorder, multiple sclerosis, steroid

## PARATHYROID ADENOMA ASSOCIATED WITH LITHIUM USE AND TREATMENT OF HYPERCALCEMIA ASSOCIATED WITH LITHIUM USE IN A CASE OF TREATMENT-RESISTANT DEPRESSION

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**OBJECTIVE:** Lithium is used in the treatment of many psychiatric disorders such as bipolar disorder, major depression, and treatment-resistant depression. Lithium may have side effects on many systems. Hypercalcemia and hyperparathyroidism concerning the endocrine system have been reported. Lithium-associated hyperparathyroidism(LAH) may be due to asymmetric gland hyperplasia or adenomas. In this case report, the management of parathyroid adenoma and hypercalcemia that developed after lithium use, the treatment of the psychiatric picture, and lithium re-challenge are discussed.

**CASE:** In this case report prepared with the patient's consent, a 60-year-old male patient made his first psychiatric admission in 2000 with depressive complaints. SSRIs and SNRIs were used at an effective dose and duration with no adequate response, so lithium bicarbonate 1200 mg/d was added an SSRI and the patient benefited from the treatment. Ten years after lithium initiation, the patient applied to the family physician with complaints of contractions/cramps in his legs. Hypercalcemia and hyperparathyroidism were detected in the examinations, he was referred to endocrinology, parathyroid adenoma was detected in the neck examination and a diagnosis of LAH was made. It is understood that lithium was discontinued, and cinacalcet treatment was started and the patient refused the recommended parathyroidectomy. After discontinuation of lithium, the patient's depressive symptoms recurred, and lithium was restarted with cinacalcet treatment and close serum calcium monitoring, and it is understood that the patient benefited significantly from the treatment.

**DISCUSSION:** Chronic lithium use may trigger hyperparathyroidism in the presence of subclinical parathyroid adenoma. While parathyroidectomy is an effective option in patients with refractory hypercalcemia or parathyroid adenoma/hyperplasia, calcimimetics which reduces parathyroid hormone secretion in parathyroid cells by increasing the activation of the CaSR receptor, are used in patients ineligible for parathyroidectomy, and unable to discontinue lithium because of worsening psychiatric symptoms.

**Keywords:** hypercalcemia, lithium, parathyroid adenoma, treatment-resistant depression



## DELUSIONAL PARASITOSIS ACCOMPANIED BY BIPOLAR AFFECTIVE DISORDER, SHARED PSYCHOTIC DISORDER AND HYPERTHYROIDISM: A CASE REPORT

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**OBJECTIVE:** We aim to report a 52-year-old woman diagnosed with delusional parasitosis with comorbid bipolar disorder and hyperthyroidism, as well as the shared psychotic disorder (Folie à Deux) in her husband.

**CASE:** Our patient was a 52-year-old woman who was admitted to dermatology clinic complaining of “feeling and seeing multiple types and a large number of parasites crawling on her body”. The patient, previously seen by dermatology with scabies ruled out, was referred to psychiatry due to complaints of sensing and seeing insects on her body. She described the onset of itching six months ago, followed by visualizing insects. Her spouse experienced similar symptoms later. The patient’s mood was dysphoric, and affect was irritable with increased speech rate and volume, and physical activity in the ward. Suicidal ideation was mentioned. The patient was transferred to psychiatry due to bipolar mood disorder depressive episode, with mixed features, and delusional parasitosis. Initial electroconvulsive therapy was contraindicated due to hyperthyroidism. Intramuscular Haloperidol was initiated, transitioning to oral valproate and risperidone. Hyperthyroidism treatment was started by endocrinology. Follow-up showed improved mood, reduced delusions, and itching, leading to discharge. She is still followed up by Psychiatry and Endocrinology. Consent was obtained from the patient for this case presentation.

**DISCUSSION:** Hyperthyroidism and psychiatric disorders such as bipolar mood disorder are among the causes of secondary delusional parasitosis. In this patient, the presence of both conditions simultaneously and the shared psychotic disorder features observed in the spouse are notable. The aim is to manage the patient both endocrinologically and psychiatrically, monitor thyroid levels and mood episodes, and investigate their effects on delusional parasitosis symptoms.

**Keywords:** hyperthyroidism, shared psychotic disorder, bipolar mood disorder, delusional parasitosis

## A CASE OF GLYCOGEN STORAGE DISEASE TYPE 1A AND PSYCHIATRIC SYMPTOMS

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**OBJECTIVE:** Glycogen storage disease Type 1a (GSD1a) is a rare metabolic disorder that prevents the body from breaking down glycogen, resulting in physical and mental symptoms. This report presents the psychiatric symptoms of a 21-year-old female with GSD1a.

**CASE:** Consent has been obtained from the mature individual as well as from her parents for the presentation. A 21-year-old female high school graduate patient was brought to the psychiatric clinic due to being introverted, having a decreased amount of speech, avoiding being touched, and listening to her parents’ door. She always felt obliged to get out of bed the same way; she avoided touching yellow things; she had used Selective Serotonin Reuptake Inhibitor (SSRI) 4 years ago due to being introverted; she had difficulties in social relationships since childhood; and her academic success gradually decreased after the second grade of primary school. Her parents were cousins, and her uncle had schizophrenia. She had difficulty transitioning to solid foods due to distress, loss of appetite, developmental delay, hepatomegaly, and elevated transaminases. GSD1a had been diagnosed at the age of 9 months. Throughout her life, she suffered from numerous medical complications, such as hyperuricemia, iron deficiency, central hypogonadism, recurrent hypoglycemia, hyperlipidemia, lactic acidosis, and hydronephrosis. She was frequently hospitalized and required strict treatment regimens. A mental status examination revealed emotional blunting, slowness in speech and psychomotor activity, poverty in thought content, impairment in abstract thinking, negative symptoms, borderline intellectual functionality, social anxiety symptoms, subthreshold obsessive-compulsive symptoms, and depressive symptoms.

**DISCUSSION:** The patient’s psychological difficulties due to GSD1a and blood sugar irregularities, along with the family history of schizophrenia and negative symptoms, indicate the need for follow-up for psychosis risk. This case underscores the importance of holistic care and collaboration between medical and psychiatric specialties in managing the complex interplay between metabolic and psychiatric manifestations in GSD1a.

**Keywords:** Glycogen storage disease Type 1a, psychiatry, psychiatric illness

## SCHIZOPHRENIA PATIENT WITH CAVUM SEPTUM PELLUCIDUM ET VARGA VARIATION

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**OBJECTIVE:** Psychosis is a psychiatric disorder characterized by a distorted evaluation of reality, accompanied by delusions and hallucinations. The emergence of psychotic symptoms may be associated with environmental factors, genetic predisposition, neurodevelopmental disorders, physical illnesses, or conditions directly affecting brain tissue. We emphasize the relationship between schizophrenia and the abnormal development of the cavum septum pellucidum (CSP), a part of the limbic system, in this case.

**CASE:** A 25-year-old female patient with no previously known diagnosis of psychotic disorder. She presented to our clinic two weeks ago with complaints of insomnia, loss of appetite, seeing her relatives in different forms, hearing voices, believing she is a prophet, fearing harm from her family, believing everything is a conspiracy, increased religious activities, and disorganized behavior. She was admitted to the clinic for diagnosis and treatment purposes. After conducting a mental status examination and evaluations upon admission, the diagnosis of 'schizophrenia' was considered according to DSM-V criteria. In the brain MRI, conducted to exclude organic central pathologies, a cavum septum pellucidum (CSP) with a width of 7.33 mm and et varga variation was detected. The other brain structures and EEG were normal. After a 7-week follow-up, the patient responded well to the combination therapy of clozapine 200 mg/day and zuclopenthixol 200 mg/14 days intramuscular injection. Consent was obtained from the patient who was discharged in a stable condition for case presentation.

**DISCUSSION:** Although CSP and CSP are present as normal variations, they have been considered as markers of impaired neurodevelopment. CSP is observed in various psychiatric disorders, most commonly in schizophrenia. It has been found that the prevalence of abnormal CSP in schizophrenia patients is significantly higher than that observed in normal individuals. This case highlights the relationship between certain structural abnormalities in the brain and the development of schizophrenia.

**Keywords:** cavum septum pellucidum, neuropathology, schizophrenia

## COMPARISON OF METABOLIC DYSREGULATION AND INFLAMMATION IN PATIENTS DIAGNOSED WITH SCHIZOPHRENIA WITH AND WITHOUT ATTEMPTED SUICIDE

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**BACKGROUND AND AIM:** Schizophrenia is the most common psychotic mental illness. Various studies indicate that the lifetime suicide rate for those diagnosed with schizophrenia is between 4-13%. Suicide is the most important cause of reduced life expectancy in patients diagnosed with schizophrenia. Studies have shown that there may be a relationship between serum lipid levels, thyroid hormones, inflammation markers and suicidality. This study aimed to compare the total cholesterol, LDL, HDL, Triglyceride, TSH, T3, T4, CRP, Neutrophil/Lymphocyte ratio parameters of patients diagnosed with schizophrenia who attempted suicide and patients diagnosed with schizophrenia who did not attempt suicide.

**METHODS:** The medical files of patients who received inpatient treatment with a diagnosis of Schizophrenia according to DSM 5-TR in the 12th Psychiatry Service of Bakırköy Mental and Neurological Diseases Hospital between January 2020 and June 2023 were retrospectively examined. 39 Schizophrenia patients with lifetime suicide attempts and 89 schizophrenia patients without suicide attempts who met the inclusion and exclusion criteria were included in the study. Total cholesterol, LDL, HDL, Triglyceride, TSH, T3, T4, CRP, Neutrophil/Lymphocyte ratio parameters were recorded for both groups. The study was approved by the Scientific Research Ethics Committee of the Bakırköy Dr. Sadi Konuk Training and Research Hospital. (Approval number: 2023-14-09)

**RESULTS:** There was no significant difference in total cholesterol (p: 0.107), LDL (p: 0.782), HDL (p: 0.605), Triglyceride (p: 0.220), TSH (p: 0.858), T3 (p: 0.124), T4 (p: 0.420), CRP (p: 0.107), Neutrophil/Lymphocyte ratio (p: 0.149) values between the groups with and without suicide attempt.

**CONCLUSIONS:** Although there are studies in the literature that may or may not find a relationship between thyroid function tests, inflammatory markers and serum lipid levels with suicide, our study is the first to compare all of these parameters in schizophrenia patients with and without suicide attempts. Our findings are consistent with those previous studies that found no association between metabolic dysregulation and inflammatuar markers with suicidality.

**Keywords:** inflammation, metabolic dysregulation, schizophrenia, suicide

## DIAZEPAM TREATMENT OF CATATONIA

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**OBJECTIVE:** Catatonia is a neuropsychiatric syndrome characterized by motor, cognitive, affective and autonomic symptoms. The syndrome can occur in the context of many psychiatric illnesses and general medical disorders. The most effective treatment options for catatonia are benzodiazepines and electroconvulsive therapy (ECT). In this case report, we wanted to draw attention to the importance of high dose diazepam in the treatment of catatonia, which we will encounter more frequently in the future due to the limited supply of lorazepam in our country.

**CASE:** H.Y. 26 years old, male patient; middle school graduate, not working. He was followed up for 3 years with a diagnosis of schizophrenia and benefited from aripiprazole 400 mg/month treatment. Recently, he was admitted to the hospital due to recurrence of psychotic symptoms. Clinical observation during hospitalization revealed stereotypic movements and wax elasticity in posture. It was evaluated as catatonia and lorazepam treatment was started. It was decided to continue the treatment with diazepam due to the limitation in the supply of lorazepam. Diazepam dose was adjusted as 75 mg/g. By this treatment, catatonia symptoms of the patient regressed significantly. The patient was discharged in remission with Diazepam 15 mg/day and Aripiprazole 400 mg/month.

**DISCUSSION:** The presence of catatonia indicates a psychiatric or other medical condition. In our case, we preferred diazepam in the treatment of catatonia due to the limited availability of lorazepam in our country and the fact that ECT is not yet actively used in our clinic. We started with a high dose and gradually decreased the dose. In the coming period, diazepam treatment will gain more importance in the treatment of catatonia in our country as the difficulty in the supply of lorazepam is expected to continue.

**Keywords:** benzodiazepine, catatonia, diazepam, treatment

## COTARD'S SYNDROME ASSOCIATED WITH PSYCHOTIC DEPRESSION AND ITS REMISSION WITH ELECTROCONVULSIVE THERAPY: A CASE REPORT

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**OBJECTIVE:** Cotard syndrome; It is a rare syndrome characterized by a series of delusions ranging from the belief that the person has lost his/her organs, blood, body parts, to the persistent belief that he/she has lost his/her soul or died. In our article, we aimed to contribute to the literature by mentioning a case who was followed up with the diagnosis of psychotic depression accompanied by nihilistic delusions and remission was achieved with the application of electroconvulsive therapy (ECT). Informed consent of the patient was obtained for the case report.

**CASE:** A 32-year-old female presented with complaints of unhappiness, reluctance and the thought of being dead. With the information received from the patient, we learned that 'olanzapine', 'sertraline' were started as a treatment but there was no response to the treatment. The case's statements such as "I am no longer living in this life, I have soil on me, there are wolves in the soil, I don't have a mouth, my liver was displaced" drew attention. She was hospitalized and it was decided to start ECT for the patient. After 11 ECT sessions, there was a significant regression in her complaints and her current treatment continues with outpatient follow-ups.

**DISCUSSION:** Although its association with psychotic depression is the most common presentation, Cotard Syndrome; It can also be seen with other diseases such as schizophrenia, bipolar disorder, dementia, brain tumors. When it is seen together with psychotic depression, antidepressant and antipsychotic combination can be used in the treatment; Evaluation of ECT among the early treatment options is important in terms of suicide risk, severity of symptoms, high loss of functionality and significant response to ECT treatment in these patients. In addition, it is reported that continuation of the patients' maintenance treatment after ECT treatment may be protective against the risk of recurrence.

**Keywords:** Cotard syndrome, ECT, psychotic depression

## A CASE WITH ALCOHOL USE DISORDER AND KORSAKOFF'S PSYCHOSIS FOLLOWING SLEEVE GASTRECTOMY SURGERY

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**OBJECTIVE:** Wernicke-Korsakoff Syndrome (WKS), which occurs as a result of thiamine deficiency, is a rare complication of Sleeve Gastrectomy Surgery (SGS). The passage and metabolism of alcohol can be affected by SGS, which may lead to thiamin deficiency and WKS.

**CASE:** A 42-year-old man was referred to psychiatry clinic by his family with confabulating stories, delusions and forgetfulness. He had SGS 8 years ago and he started drinking alcohol every day after the surgery. Although he didn't consume alcohol for 3 years now, the complaints of amnesia, psychotic features and confabulations increased. Before SGS, he was not diagnosed with alcohol use disorder and his functioning was good. In his examination, he had anterograde-retrograde amnesia, apathetic mood, and delusions. His insight was poor, and he scored 22/30 on the Mini-Mental State Examination. He had difficulties with short-term immediate and delayed memory and visuospatial construction. Cerebral Magnetic Resonance Imaging showed cortical atrophy, and Positron Emission Tomography showed hypometabolic areas in the cerebral cortex. Based on the patient's history, clinical presentation, and findings; diagnosis of Korsakoff psychosis was established. Treatment with thiamine 100 mg/day, olanzapine 10 mg/day and donepezil 5 mg/day were started. During his 20-day hospital course, he showed minor improvements, including a reduction in the delusions. "Written informed consent was obtained from the patient's family for publication of this case report"

**DISCUSSION:** Korsakoff's psychosis is characterised by anterograde-retrograde amnesia, apathy, confabulation, psychotic features, repetitive speech. It is a late and chronic neuropsychiatric manifestation of Wernicke's encephalopathy. The effects of SGS on alcohol metabolism have been reported to be faster and higher peak blood alcohol levels. An increased risk of alcohol use disorder occur when the patient substitutes food consumption for alcohol consumption. SGS is a less common cause of WKS, but with alcohol use disorder, can lead to WKS due to thiamine malabsorption.

**Keywords:** sleeve gastrectomy surgery, alcohol use disorder, wernicke korsakoff syndrom

## A CASE OF REFRACTORY DEPRESSION SUCCESSFULLY TREATED WITH A COMBINATION OF INTRAVENOUS KETAMINE AND TRANSCRANIAL DIRECT CURRENT STIMULATION

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**OBJECTIVE:** There is evidence that IV ketamine, an NMDA antagonist or tDCS applied to the dorsolateral prefrontal cortex (dlPFC), can be used in treatment-resistant depression (TRD). This case report discusses a case in which IV ketamine and dlPFC tDCS treatments were administered together in the diagnosis of TRD. Consent was obtained from the patient for this case report.

**CASE:** A 42-year-old woman presented to the outpatient clinic with complaints of hopelessness, worthlessness, thoughts of guilt, unhappiness and thoughts of death. For 15 years, she had numerous psychiatric admissions and one hospitalisation, but she didn't define a full remission. The patient, who had no previous history of mania/hypomania, was admitted to the ward with a diagnosis of TRD. The patient was receiving bupropion 300 mg/day, sertraline 200 mg/day and lamotrigine 25 mg/day. At the time of admission, she fulfilled the diagnostic criteria for depressive disorder and had suicidal ideation but no psychotic symptoms. Hamilton Depression Scale (HAM-D) score was 23 on admission. In addition to pharmacological treatment with venlafaxine 300 mg/day and lithium 600 mg/day, the patient received a total of 6 sessions of IV ketamine infusion at a dose of 0.5 mg/kg to be given twice a week for 30 minutes for 3 weeks and 15 sessions of tDCS at a dose of 2 mA to the left anodal dlPFC for 30 minutes every day. At the end of the treatment, the patient benefited from the treatment. Before discharge, the HAM-D score was eight, and the patient was in clinical remission.

**DISCUSSION:** In this case report, IV ketamine and tDCS treatment applied to dlPFC were found to be effective in accordance with the information in the literature. It seems that these treatments can be used as an option in TRD. More research is needed on the combined use of these two treatment modalities in TRD patients.

**Keywords:** depression, resistant, ketamine, treatment, tDCS

## DOPAMINE DYSREGULATION SYNDROME RELATED TO THE USE OF BENSERAZIDE IN A PATIENT WITH PARKINSON'S DISEASE: A CASE REPORT

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**OBJECTIVE:** Dopamine dysregulation syndrome (DDS) is a neuropsychiatric disorder described in Parkinson's disease (PD), which emerges with the administration of dopamine replacement therapy (DRT). Here, we discuss the clinical features, diagnosis and management of a DDS case.

**CASE:** Before the case report, the patient was informed about this, and the patient's and relatives' consent was received. A 60-year-old man who was diagnosed with Parkinson's disease 3 years ago presented with uncontrolled gambling and alcohol use, hypersexuality, insomnia, irritability, and uncontrollable shopping. These symptoms emerged 2 years ago with the initiation of benserazide. When not taking benserazide, mood swings with a depressive tendency, anhedonia, and drug-seeking are described. His anamnesis revealed excessive use of benserazide (750 mg/day) contrary to the recommendation of his neurologist. He kept using this medication while in fact his treatment regime had been moderated into daily doses of levodopa 100 mg four times, rasagiline mesylate 1 mg/day, and benserazide 125 mg/day. He was prescribed escitalopram 5 mg daily for depressive symptoms and improved impulse control, together with clozapine titrated from 12.5 to 25 mg/day. Quetiapine up to 100 mg/day was added for insomnia, to be taken in case of need. Moreover, the patient and his relatives were informed about potential legal consequences, and the appointment of a legal guardian was also recommended. The patient was referred to AMATEM for a more comprehensive treatment program including subsequent rehabilitation.

**DISCUSSION:** The case illustrated here represents the importance of interdisciplinary collaboration in neuropsychiatric conditions, and close monitoring of behavioral changes in patients with neurological diseases. Clinical, social and legal aspects of such disorders need to be thoroughly evaluated on an individual basis. Being aware of risk factors may be of help for prevention and early detection. Moreover, early detection provides more effective intervention and reduces the social, medical, and psychiatric consequences of the condition. Future studies might contribute to improving the diagnostic criteria of DDS.

**Keywords:** benserazide, dopamine dysregulation syndrome, dopamine, gambling, parkinson's

## TRICHOTILLOMANIA AND TRAUMATIC GRIEF: A CASE REPORT

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**OBJECTIVE:** Trichotillomania is a psychiatric disorder characterized by the repetitive and compulsive pulling out of one's hair, without any dermatological problem involved. In this study, we aimed to present a case of trichotillomania emerging following traumatic grief. The consent of the patient has been obtained.

**CASE:** 44-year-old female patient presented to our outpatient clinic with complaints of hair pulling. From the patient's history, it was learned that her complaints began after the loss of her father, five years ago. The patient experienced the sudden loss of her father, following which she reported feelings of detachment, numbness, a sense of life being meaningless, feelings of anger related to the loss, impaired functionality, and a sense of a part of herself being lost. The patient was diagnosed with trichotillomania by the psychiatrist she visited.

**DISCUSSION:** Trichotillomania (TTM) is a psychiatric condition characterized by noticeable hair loss due to the pulling out of hair from the body. Trichotillomania typically begins in childhood, with the highest incidence occurring during early childhood and adolescence. Individuals experience intense tension before the hair-pulling and plucking behavior. TTM is often accompanied by embarrassment, avoiding social environment and decrease in self-confidence. The grieving process is the psychological response to any loss or change. Traumatic grief, on the other hand, refers to the symptoms and reactions that occur in individuals who experience the loss of a loved one due to sudden and violent death. The etiology of trichotillomania is not yet fully understood. Gershuny and colleagues reported in their study on individuals undergoing trichotillomania treatment that approximately 76% of patients had at least one traumatic history, and 19% met the criteria for Post-Traumatic Stress Disorder (PTSD).

**Keywords:** traumatic grief, trichotillomania, trauma



## ACCELERATED TRANSCRANIAL MAGNETIC STIMULATION IN TREATMENT-RESISTANT DEPRESSION PATIENT

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**OBJECTIVE:** Transcranial Magnetic Stimulation (TMS) has approved for treatment-resistant depression in 2008. The most commonly recommended TMS protocol for depressed patients is stimulation of the left dorsolateral prefrontal cortex (DLPFC) or inhibition of the right DLPFC. TMS applied more than once a day is called accelerated TMS (aTMS). We aim to present a patient with treatment-resistant depression who benefited from aTMS.

**CASE:** The patient was admitted with unhappiness, anhedonia, suicidal thoughts, insomnia, nausea, and vomiting. In his history, we learned that he had a depressive episode two years ago and used sertraline 100 mg/day, but it did not improve, and he attempted suicide at that time. He was currently using bupropion 450 mg/day and aripiprazole 10 mg/day. However, his depressive symptoms still continued, and his Hamilton Depression Rating Scale-17 (HDRS-17) score of 20 was moderate depression. Since the patient did not improve with drug treatments, we decided to apply aTMS to the patient, and aTMS was applied to the left DLPFC with intermittent theta burst stimulation (iTBS) (5 Hz, 600 pulses) and to the right DLPFC with continuous theta burst stimulation (cTBS) (5 Hz, 600 pulses) for a total of 15 sessions 3 times per day. The patient's HDRS-17 score was 20 on day 1, 9 on day 5, and 2 on day 8 of the aTMS. No side effects were observed during aTMS. The patient, who is on Bupropion 300 mg/day and Quetiapine XR 150 mg/day, has no active psychiatric complaints and continues to be followed up in our clinic with a remission for about one year. Verbal and written consent was obtained from the patient for the case report.

**DISCUSSION:** Our findings in this case suggest that aTMS could be an effective option for patients with treatment-resistant depression. In our case, significant improvement was observed following aTMS, with no side effects.

**Keywords:** accelerated transcranial magnetic stimulation, suicide, treatment-resistant depression

## COMPARISON OF EMOTION RECOGNITION SCORES OF ENGINEERING STUDENTS AND STUDENTS FROM FACULTY OF FINE ARTS

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**BACKGROUND AND AIM:** Facial emotion recognition significantly influences communication, social interactions, and behaviors. While various factors affecting facial emotion recognition have been studied, no research has directly compared recognition scores between students of different faculties or professional groups. This study aimed to compare emotion recognition scores between engineering and fine arts students. We predicted that fine arts students who are studying on visual arts such as sculpture and painting will have higher scores than engineering students.

**METHODS:** After applying the inclusion and exclusion criteria, 77 engineering students and 80 students from faculty of fine arts were selected to participate for this study. In total, 77 of the participants were male and 80 were female. Facial emotion recognition scores were compared between the groups. Facial emotion recognition test is a computer-based test that consists of four male and four female models that have expressions of happy, surprised, fearful, sad, angry, disgusted, and neutral images from the Ekman and Friesen's series. The study protocol was approved by the Bezmialem Vakif University Non-invasive Clinical Researches Ethics Board (date: 16.05.2017 no: 10/154).

**RESULTS:** Average scores of facial emotion recognition on disgust, angry, happy, neutral, surprised faces of students from fine arts are higher from engineering students. But there is no statistically significant difference was found facial emotion recognition scores between the engineering students and the students from faculty of fine arts ( $p>0.05$ ). When the females and males participated in the study were compared, average scores of females on angry and neutral faces were statistically significantly higher ( $p<0.05$ ).

**CONCLUSIONS:** This study supports the female advantage on recognizing facial expressions that have been shown in many studies and is a first in the field in terms of comparing students from two different disciplines. Despite higher scores among fine arts students, the absence of statistical significance suggests engineering students are equally proficient in emotion recognition.

**Keywords:** emotion recognition, facial expression, emotion perception

## ALTERNATIVE TREATMENT OF TREATMENT-RESISTANT TRICHOTILLOMANIA: TRANSCRANIAL MAGNETIC STIMULATION (TMS)

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**OBJECTIVE:** Trichotillomania is a psychiatric disorder characterised by compulsive pulling of one's own hair, eyelashes or eyebrows. Depression and obsessive compulsive disorder adisorders comorbidity is frequently seen in patients with trichotiollomania (PMID: 36819945, PMID: 33124597). In this case report, we will present how a patient diagnosed with TTM was successfully treated with Transcranial Magnetic Stimulation (TMS) therapy in our clinic.

**CASE:** An 22-year-old female patient, previously diagnosed with trichotiollomania, presented to our clinic with hair pulling, sleeplessness complaints and depressive symptoms. From the patient's past psychiatric history, it was reported that at the age of 17, the patient was diagnosed with difficulty in anger control and trichotillomania. The previous treatments for trichotillomania were sequentially as follows: venlafaxine 300 mg/day, fluoxetine 40 mg/day, risperidone 2 mg/day, lamotrigine 50 mg/day, escitalopram 20 mg/day, paroxetine 20 mg/day, trifluoperazine, mirtazapine, and psychotherapy. The patient was admitted to our clinic for evaluation due to worsening of depressive symptoms and increased complaint of hair pulling. Due to the worsening severity of trichotillomania and the deterioration of the patient's functionality, it was decided to initiate TMS (Transcranial Magnetic Stimulation) therapy by obtaining patient consent. Procedure protocol: Power: 47%, Repetitive Rate (Frequency): 1 Hz, Pulses in Train Duration: 300, Intertrain interval (Waiting time): 120 sec, Number of Trains: 4, Total Pulses: 1200. After the 20 th session, the patient's clinical her findings started to improve, her functionality was getting well. Massachusetts General Hospital Hair Pulling Scale(MGH-HP) score, Beck Anxiety Scale and Patient Health Questionare-9 scales were administered before and after TMS therapy. Following the treatment, significant improvement was observed in both depressive symptoms, anxiety, and hair-pulling frequency.

**DISCUSSION:** In patients with treatment-resistant trichotillomania, TMS therapy may be considered as an alternative treatment option. Especially due to the risk of relapse, it is important to closely monitor patients with trichotillomania(PMID: 33124597)

**Keywords:** transcranial magnetic stimulation, Massachusetts general hospital hair pulling scale, beck anxiety scale

## LITHIUM NEUROTOXICITY FOLLOWING NECROTIZING PANCREATITIS IN A PATIENT WITH BIPOLAR DISORDER AND PARKINSON'S DISEASE: A CASE REPORT

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**OBJECTIVE:** In this article, we present a case of severe lithium intoxication that developed after acute necrotizing pancreatitis in a patient with bipolar disorder whose psychiatric symptoms were in remission while using lithium at 900 mg/day. Lithium has some serious side effects and has a narrow therapeutic range. So, blood lithium levels must be closely monitored.

**CASE:** This is a case report of a woman in her late 50s with Bipolar disorder, Parkinson's disease, and hypothyroidism. She was in remission for bipolar disorder with the treatment including Lithium 900 mg/d and quetiapine 100 mg/d. She was being monitored in the general surgery clinic when her renal functions declined, and lithium levels were measured to be 3.1 mEq/L while taking lithium 900 mg/d. She developed neurotoxicity and experienced slurred speech, mental deterioration, involuntary movements, and was transferred to the intensive care unit due to cognitive decline, psychomotor agitation, loss of orientation, and intubated due to breathing irregularities. Electroencephalography studies showed generalized epileptiform anomalies. The patient had necrotizing pancreatitis, received antibiotic treatment, an endoscopic retrograde cholangiopancreatography, and levetiracetam for epileptogenic activity. As treatment continued, inflammation declined, and the patient received IV hydration and antiepileptic treatment. Blood lithium levels decreased. Neurotoxicity findings resolved after 46 days with minimal symptoms remaining, including minimal delay in answer time, and it was easier to recall information. Consent was obtained from her son to present this case.

**DISCUSSION:** This case provides an example of lithium toxicity as a result of changes in general medical conditions without lithium overdose. We presented a case report where we have discussed the indications and manifestations of lithium neurotoxicity. Additionally, we highlighted the factors that may increase the likelihood of lithium intoxication among patients and proposed measures that can be taken to prevent such situations.

**Keywords:** bipolar disorder, lithium, necrotizing pancreatitis, neurotoxicity

## MANIC EPISODE IN A PATIENT WITH MULTIPLE METASTATIC BRAIN TUMORS

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**OBJECTIVE:** The onset of bipolar disorder occurs around the age of 20, with the initial period usually being depressive. In approximately 10% of patients with late-onset bipolar disorder, usually associated with vascular changes or other brain disorders, new-onset mania develops. During an acute manic episode, a medical condition or comorbidity may arise independently of mania, but it can also be the cause of the mania. The purpose of this presentation is to describe a case of manic episode that developed following the diagnosis of ovarian cancer two years ago, which was subsequently diagnosed with multiple brain metastases.

**CASE:** A 49-year-old female patient was brought to the psychiatry outpatient clinic by her family with complaints of elevated mood, decreased need for sleep, grandiose delusions, increased amount of speech, and increased goal-directed activities for the past two weeks. Physical violence and aggression towards family members were also reported. The patient, who was diagnosed with ovarian cancer 2 years ago, was diagnosed with brain metastases based on the MRI taken 2 weeks ago. (A lobulated cystic cavity lesion measuring 32x24x26 mm is observed in the left parietal cortex) The patient's treatment was initiated with olanzapine 12.5 mg and quetiapine 150 mg. Additionally, she was undergoing radiation therapy in oncology. During follow-up, a decrease in elevation was reported. Control MRI showed regression in the metastatic areas. Informed consent was obtained from the patient for this case presentation.

**DISCUSSION:** As stated in the literature, brain metastases are a common cause of neuropsychiatric symptoms in cancer patients and these symptoms often influence treatment options. Ovarian cancer ranks 8th among the most common cancers in women, and it is the leading gynecological cancer with an annual incidence rate of 7.5%. When patients present with an unusual course of acute mania or atypical features, psychiatrists should conduct evaluations with a multidisciplinary approach to exclude physiological or substance-related cases.

**Keywords:** manic episode, metastatic brain tumors, cancer

## LITHIUM RESPONSE IN A CASE OF ELECTROCONVULSIVE THERAPY-RESISTANT SCHIZOAFFECTIVE DISORDER: CHALLENGES AND CONSIDERATIONS

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**OBJECTIVE:** Electroconvulsive therapy (ECT), when combined with pharmacological interventions, represents a potent alternative to medication-only approaches in managing schizoaffective disorder. Reports have highlighted the efficacy of incorporating ECT for patients demonstrating resistance to clozapine. This case study delineates the clinical journey of a patient with schizoaffective disorder refractory to conventional treatments, including clozapine. The patient did not exhibit seizure under ECT and partial symptom alleviation after lithium administration.

**CASE:** Mr. D, a 55-year-old male with a diagnosis of schizoaffective disorder and no comorbid conditions. His clinical history is punctuated by recurrent suicide attempts during manic episodes and multiple hospitalizations. A notable adverse event was the development of neuroleptic malignant syndrome (NMS) during treatment with zuclopenthixol acuphase injection. Following the diagnosis of NMS and the initial treatment phase, partial improvement was achieved through ECT. Upon admission for a mixed episode of schizoaffective disorder, the mental status examination revealed limited cognitive functions, accelerated speech, dysphoric mood, labile affect, delusions of persecution and reference, heightened psychomotor activity, and active suicidal ideation. Treatment comprised clozapine, yet medical intervention failed to elicit a response, leading to the initiation of ECT. Despite seven infra-seizure sessions, subsequent neurological evaluation via EEG revealed no epileptiform activity, yet brain activity was of low amplitude. With continued ECT and dosage escalation to 100%, the patient experienced a singular seizure over ten sessions. ECT was ceased, and lithium treatment commenced, resulting in the amelioration of symptoms. Consent was obtained.

**DISCUSSION:** The co-administration of clozapine with ECT is hypothesized to lower seizure thresholds, thus elevating the risk of status epilepticus and extended postictal states. Long-standing schizoaffective disorder might engender ECT resistance, potentially due to cumulative cognitive deficits. This case posits lithium as a viable option for treatment-resistant schizoaffective disorder, underscoring the necessity for individualized treatment strategies that consider the unique physiological and pharmacological profiles of patients.

**Keywords:** clozapine, electroconvulsive therapy, lithium, schizoaffective disorder

## TRANSCRANIAL MAGNETIC STIMULATION IN THE TREATMENT OF BIPOLAR DEPRESSION: A CASE REPORT AND LATEST STUDIES IN THE LITERATURE

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**OBJECTIVE:** Although transcranial magnetic stimulation (TMS) is an approved method in the treatment of unipolar depression, different results have been reported about the effectiveness of TMS in the treatment of bipolar depression. The purpose of this presentation; To review current studies on the use of TMS, which has become increasingly popular lately, in the treatment of bipolar depression, based on a case in which TMS was applied for the treatment of bipolar depression in our hospital.

**CASE:** Person whose consent was obtained for case presentation; 57 years old, female, married, lives with her family. The patient, who has been suffering from bipolar type-2 for 27 years, has a history of hospitalization 4 times due to suicidal thoughts. The patient, whose depressive complaints recurred shortly after being discharged with lithium 900 mg/day, lamotrigine 200 mg/day, venlafaxine 225 mg/day treatment in October 2023, was referred to our clinic for TMS treatment by the follow-up physician. The lithium level measured before the TMS protocol was observed as 0.9 mmol/L. TMS treatment was started on the left dorsolateral prefrontal cortex, in addition to the current treatment, with a protocol of 20 Hertz, 100% Motor-threshold power, 2000 pulses/session, a total of 20 sessions. While the person's Hamilton Depression (HAM-D) score was 44 before the first session, the HAM-D score was measured as 28 after completing the 20 sessions of TMS protocol. In the case we followed, it was observed that the person whose depression scores decreased by 25-50% after TMS application responded partially to the treatment

**DISCUSSION:** There are recent studies showing that TMS applications are effective and reliable as an alternative treatment in the treatment of bipolar depression. More studies are needed to determine common treatment protocols.

**Keywords:** bipolar depression, neuromodulation, transcranial magnetic stimulation

## DISCONTINUATION OF ANTIPSYCHOTIC TREATMENT IN A PATIENT WITH SCHIZOPHRENIA

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**OBJECTIVE:** Psychiatric well-being has been defined as a state in which the individual is aware of his or her abilities, can cope with stress, work productively and contribute to society. In this case, we present a patient with schizophrenia who discontinued antipsychotic treatment, whom we followed up without any medication at subsequent follow-ups, and maintained her psychiatric well-being for 18 months.

**CASE:** 52 years old, has 2 children, widowed, unemployed, illiterate, female patient. In her first application in March 2018, her complaints that have been present for 3 years and continue to increase, such as thinking that people are watching her and will harm her, saying that she knows people, seeing people face's changed, laughing to herself. After the anamnesis and mental status examination, the patient was hospitalized with a diagnosis of schizophrenia. PANSS score was 107. Paliperidone 12 mg/d was started. Paliperidone 100 mg/month treatment was administered at the discharge to the patient who was predicted to be incompatible with oral medication. As tardive dyskinesia detected, the treatment was continued with aripiprazole 400 mg/month in August 2020. No psychotic symptoms was detected in the control examination of the patient who left the treatment voluntarily for 4 months in December 2022. Since this patient had tardive dyskinesia and did not have any psychotic symptoms during the control examination, follow-up was continued without medication, and the patient and her relatives were warned about the precursor symptoms and frequent follow-up was recommended. In the 18-month period until her last examination in March 2024, no psychotic symptoms and tardive dyskinesia were detected. It was also stated that the patient started working, and she met with her friends regularly.

**DISCUSSION:** In the maintenance treatment of appropriate schizophrenia patients, intermittent treatment or drug withdrawal approaches may be considered to both prevent side effects and increase functionality.

**Keywords:** intermittent treatment, drug withdrawal, side effects

## A RARE CASE OF BIPOLAR DISORDER CO-OCCURRING WITH SPINOCEREBELLAR ATAXIA: A NEUROPSYCHIATRIC INTERSECTION

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**OBJECTIVE:** Spinocerebellar ataxia is a progressive neurodegenerative disease that mainly affects the cerebellum. This case report is a rare case in which bipolar disorder and cerebellar ataxia co-occur, showing the importance of managing the clinical and neurological manifestations of these disorders collectively.

**CASE:** A 26-year-old, university-educated male patient presented to our clinic with symptoms suggestive of manic episodes, including rapid and dominating speech and increased purposeful activities. The patient had a history of experiencing manic episodes approximately three years prior, following a period characterized by religious obsessions resulting in a diagnosis of Bipolar Disorder. Improvement in symptoms was noted under valproic acid treatment. As a result of the neurological examinations and examination performed upon complaints of ataxic gait and loss of balance, which started suddenly approximately 6 months after his first psychological complaints, it was understood that he was diagnosed with spinocerebellar ataxia due to dysarthric speech, bilateral rotatory nystagmus symptoms and significant diffuse atrophy findings in the cerebellar hemispheres on brain MRI imaging. Pharmacological management was adjusted to include lithium carbonate, olanzapine, risperidone, and chlorpromazine resulting in a reduction of manic features. The patient provided written consent for the publication of this case report.

**DISCUSSION:** Cerebellar ataxia has been reported to co-occur with mood disorders in the literature. Furthermore, evidence suggests that cerebellar alterations may be seen in bipolar disorder. A neuroimaging study by Lupo et al. proposed a cerebellar influence on cognitive and mood dysregulation symptoms in both bipolar and neurodegenerative cerebellar diseases. Additionally, a study demonstrating the induction of similar symptoms through cerebellar damage in a mouse model further supports the clinical observations regarding this relationship. This case underscores the rare co-occurrence of bipolar disorder and cerebellar ataxia.

**Keywords:** bipolar disorder, cerebellar ataxia, mood disorder, spinocerebellar ataxia

## NAVIGATING COMPLEX DIFFERENTIAL DIAGNOSES IN PSYCHOTIC DISORDERS: A UNIVERSITY HOSPITAL CASE REPORT

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**OBJECTIVE:** The process of differentiating among psychotic disorders is inherently challenging due to the broad spectrum of mental functions affected, the variability of symptoms among patients and over time, and the wide range of symptom severity and functional impact. This case report details the diagnostic journey of a patient admitted to a university hospital, where a comprehensive differential diagnosis was considered, encompassing atypical psychosis, schizoaffective disorder, dissociative disorder, personality disorders, functional neurological disorder, malingering, and organic mental disorder.

**CASE:** Consent obtained from the patient. Ms.S, a 41-year-old, divorced, presented with an inability to recall her past following stress. She reported altered perception of people, falsely believing she wore black glasses, and claimed changes in her surroundings and in the veracity of her socio-demographic information, asserting she was married and engaging in inappropriate communications with the alleged spouse. She also reported thought alteration via X-rays, auditory and visual hallucinations, and illusions. Notably, her affect was appropriate, and she exhibited a desire for a disability report. She had been prescribed cabergoline for pituitary adenoma but had discontinued use. Her history included episodes of increased activity, grandiosity, delusional thoughts. She had previously been managed for bipolar affective disorder, dissociative disorder at an external center, with fluctuating functionality. During hospitalization, her general appearance was noted to be well-maintained, with coherent speech, euthymic mood, congruent affect. Bizarre, referential, erotomanic delusions were questioned, along with auditory hallucinations and visual illusions. A cessation of oral antipsychotics led to an exacerbation of psychotic symptoms, though she remained engaged and organized within the ward environment. The presented amnesia was interpreted as related to her delusional beliefs. MMPI indicated a submerged profile; she scored maximally on the REI test. Organic pathologies were ruled out through imaging. Atypical psychosis was considered the most likely diagnosis, prompting the initiation of antipsychotic treatment. This led to a significant improvement in auditory hallucinations, visual illusions, and delusional thoughts, with no further reports of amnesia.

**DISCUSSION:** Diagnosing psychotic disorders is challenging due to varied disease courses, interpersonal dynamics, episodic manifestations, compounded by symptom nonspecificity. Diagnosis relies on evaluating symptom clusters, progression, and severity. In complex cases, inpatient assessment offers a controlled environment for accurate diagnosis and treatment initiation.

**Keywords:** functional neurological disorder, differential diagnosis, malingering, personality disorders, psychotic disorders, schizoaffective disorder



## ULTRA RAPID CYCLING SCHIZOAFFECTIVE DISORDER: A CASE REPORT

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**OBJECTIVE:** In the differential diagnosis of schizoaffective disorder, consideration is given to mood disorders with psychotic features, chronic psychoses with prominent mood symptoms, and mood disorders with acute and severe psychotic symptoms. Polycystic ovary syndrome (PCOS) stands as the most commonly diagnosed endocrine disorder in women of reproductive age. Some studies have shown an increased prevalence of various psychiatric disorders, including bipolar affective disorder and schizophrenia, in women with PCOS.

**CASE:** A 32-year-old married female lawyer presented with symptoms including persecution, reference and delusional thoughts, outbursts, social withdrawal, stereotypical thinking, and loss of spontaneity of speech over the past year. The patient, who had no insight and intense drug resistance, was admitted with a pre-diagnosis of schizophrenia due to escalating anger control issues over six months. Her medical history included rare menstrual periods since puberty and six months of hyperandrogenism and amenorrhea. PCOS diagnosis was made a week prior. This was noteworthy considering that the increase in the patient's schizoaffective symptoms also dated back to 6-months. She reported experiencing weekly mood episodes for the past three years, cycling between one week of mania, one week of depression immediately after, and one week of euthymic state. Over the past six months, the duration of these cycles has shortened to about a week. PANSS scale score at admission was 111, decreasing to 80,69, and 64 during hospitalization. Treatment commenced with olanzapine 10 mg/day and lithium up to 1200 mg/day upon observing affective symptoms and psychoemotional agitation. Patient consent has been obtained.

**DISCUSSION:** Ultra-rapid cycling in bipolar disorder involves experiencing at least four mood episodes within a year, with rapid switches between manic, hypomanic, depressive, or mixed states, sometimes occurring within days or hours. Given the patient's three mood changes in one week and persistent psychotic symptoms for a year, our diagnosis leans towards schizoaffective disorder with an ultra-rapid cycling affective component. Studies indicate a higher risk of bipolar disorder and a prevalence of schizophrenic disorder in women with PCOS, as evidenced by a meta-analysis of over 400,000 women and several publications, respectively.

**Keywords:** depression, differential diagnosis, mania, mood disorders, schizoaffective disorder, schizophrenia

## SHARED PSYCHOTIC DISORDER FOLIE À DEUX: A CASE REPORT

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**OBJECTIVE:** Shared psychotic disorder is characterized by the primary individual having prominent delusions and the second individual, with whom he/she has a close relationship, blindly accepting and sharing these delusions even though they are not actually psychotic. Long follow-up studies are needed to clarify risk factors for understanding this most pathological form of interpersonal relationship and to provide information on prognosis. In this case report, the emotional and physical bond between brother and sister supports the diagnosis of shared psychotic disorder. These rare cases should be reported, monitored, and similar studies should be collected and presented. This is aimed in our case report

**CASE:** For this case report, informed consent was obtained from our patient under appropriate conditions. A 36-year-old single trans man living with his sister. The patient has no previous psychiatric history but has a history of gender confirmation surgeries and hormone therapy. According to the patient, he was drugged and sexually assaulted while working in ship maintenance and repair. She also alleges that her sister's husband installed cameras and recording devices in their home and sexually assaulted her. Her sister confirmed that she had planted the cameras to verify the patient's allegations but found nothing. Assessment of the patients revealed the presence of paranoid delusions. Lack of insight and impaired judgment were observed. The patient's treatment process is ongoing.

**DISCUSSION:** In conclusion, shared psychotic disorder is a condition frequently seen in families where autonomy is limited, and personal boundaries are unclear. In this case example, the primary case is a transgender individual, and the shared nature of the delusions is influenced by the close relationship and living arrangements between the sister and the brother.

**Keywords:** disorder, psychotic, shared

## FIRST EPISODE OF MANIA DURING TREATMENT OF ACUTE BRUCELLOSIS: A CASE

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**OBJECTIVE:** Purpose of this report is to draw attention to the diagnosis and management of a case of first episode mania induced during Brucella treatment by an antibiotic combination of Doxycycline and Rifampicin.

**CASE:** 37 years old male patient with no previous psychiatric history presented to the emergency clinic with symptoms of aggression and over talkativeness and was consulted to psychiatry. His vitals and neurological exam were normal. Upon psychiatric evaluation an elevated mood was accompanied with physical aggression. His Young Mania Rating Score (YMRS) was: 44. His medical history revealed a diagnosis of Brucellosis 20 days ago upon presenting to the clinic with symptoms of fever, fatigue, and joint pain. He was on combination antibiotic treatment: Doxycycline and Rifampicin. Symptoms of the infection had subsided, but symptoms of sleep loss and aggression had started on the 10th day of treatment. His family history revealed a risk for mood disorders, both his father and older brother had diagnoses of Bipolar 1 Disorder. Cranial MRI was normal and neurology consultation ruled out Brucella meningoencephalitis. He was diagnosed with acute mania, induced by antibiotic treatment. After consulting with the Infectious Diseases Specialist antibiotic treatment was not changed. Olanzapine 20 mg/day was started for mania treatment, considering Rifampicin is a CYP1A2 enzyme inducer and lowers Olanzapine's serum levels. His YMRS after one week of treatment was 30 points. He had no fever or extrapyramidal symptoms; his liver enzymes were normal. Olanzapine dose was elevated to 30 mg/day. On the 21st day of anti-manic treatment with Olanzapine, his manic symptoms fully subsided. Written consent was obtained from the patient after remission.

**DISCUSSION:** Brucellosis is an endemic infection and is more frequent in Eastern Türkiye, psychiatrists working in the region should pay attention to the medical history of patients and keep in mind possibilities of Brucella meningoencephalitis and drug interactions.

**Keywords:** antibiotic treatment, bipolar, brucellosis, mania

## UNEXPECTED ALLERGIC REACTION WITH PALIPERIDONE LONG-ACTING INJECTABLE TREATMENT

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**OBJECTIVE:** Paliperidone, a second-generation antipsychotic agent, is known for its efficacy in treating schizophrenia and schizoaffective disorder, as well as its adjunctive use with mood stabilizers and antidepressants for mood disorders. It is available in both oral and long-acting injectable forms (LAI). In this paper, we report a rare case of cutaneous allergic reaction that emerged following the transition from oral paliperidone treatment to LAI form in a patient who previously tolerated oral paliperidone.

**CASE:** A 50-year-old woman with a diagnosis schizophrenia was treated with oral paliperidone. The patient tolerated oral paliperidone well, and no adverse effects associated with the treatment were observed. On day thirty, she received the paliperidone LAI and developed an allergic reaction within three days, presenting with red, itchy lesions on the abdomen. Over the next three days, the lesions tended to spread towards the upper extremities. However, they subsided following the repeated administration of topical antihistamines within ten days.

**DISCUSSION:** The allergic reaction that occurred following the administration of the paliperidone LAI but not oral tablets, suggest it is likely attributable to the excipients in the formulation of the LAI rather than paliperidone itself. This case highlights the importance of monitoring for allergic reactions when switching from oral to LAI formulation, even if oral paliperidone is well tolerated. Consent has been obtained from participant.

**Keywords:** long-acting injectable, paliperidone, skin, rash

## DELUSIONAL MISIDENTIFICATION SYNDROMES: ARE THEY REALLY RARE?

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**OBJECTIVE:** Delusional misidentification syndromes (DMSs) represent intricate psychotic phenomena that can manifest in diverse forms across various neurological and psychiatric conditions. Fregoli syndrome characterizes a condition where an individual harbors the delusional conviction that multiple individuals are a single person altering their appearance or disguising themselves. Conversely, Capgras syndrome entails the unfounded belief that a familiar individual, such as a friend or family member, has been substituted by an identical impostor. Here we present case series of three individuals with DMSs (one Fregoli, one Capgras, and one unspecified DMSs) who received inpatient treatment within a period of two months.

**CASE:** İ.N.D, a 21-year-old woman, was diagnosed with atypical psychosis. She developed the belief that some of the people she saw on the street were actually her old high school classmate. During her hospitalization, she developed the belief that the psychologist who took care of her was actually her brother's mother-in-law. İ.T., a 32-year-old woman, was diagnosed with brief psychotic episode. She stated that his mother was actually her mother-in-law and her brother was actually her uncle. S.A., a 50-year-old woman, was diagnosed with atypical psychosis five years ago but has never used antipsychotic medication. During her hospitalization, she developed a delusion that there were people assuming her identity and profiting from this situation. Consent has been obtained from all participants.

**DISCUSSION:** DMS are rare psychopathologic phenomena. However, we observed this syndrome in three of our patients within a period of two months. Cranial-MRI and EEG examinations for all individuals were normal. Deficiencies in vitamin-B12 were detected in two patients, while iron deficiency was found in one. These cases suggest that, DMSs may be more prevalent in non-organic psychosis than previously believed and underscores the need for more detailed investigation into factors that may contribute to the onset and treatment of DMSs, perhaps, such as vitamin-B12 deficiency.

**Keywords:** capgras, fregoli, rare

## OVERVIEW OF PATIENTS RECEIVING ELECTROCONVULSIVE THERAPY AT A UNIVERSITY HOSPITAL PSYCHIATRY CLINIC

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**BACKGROUND AND AIM:** Electroconvulsive Therapy (ECT) is one of the oldest biological treatment methods, inducing generalized seizures through brain electrical stimulation under general anesthesia. This study examines clinical characteristics of patients receiving ECT at a university hospital psychiatry service.

**METHODS:** 83 patients undergoing ECT between January 1, 2019, and February 9, 2024, at Selçuk University Faculty of Medicine's Psychiatry Department were studied from 1540 inpatients. Data were obtained by retrospectively reviewing patients' files. The Selçuk University Faculty of Medicine has applied to the ethics committee (302/24).

**RESULTS:** Between January 1, 2019, and February 9, 2024, 5.38% (n=83) of 1540 inpatients received ECT. Of these, 45.8% (n=38) were female, 54.2% (n=45) male. Mean ages were 44.9±15.5 (female) and 37.5±18.5 (male). Average stays were 24.7±13.0 (female) and 26.5±18.3 (male) days. Mean ECT sessions per patient were 7.3±3.7 (female) and 7.0±2.9 (male). Diagnoses included: unipolar depression 41%, schizophrenia 14.5%, bipolar depression 12%, bipolar mania 8.4%, non-organic psychosis 4.8%, obsessive-compulsive disorder 4.8%. ECT indications were treatment resistance 68.7%, suicide attempt 15.7%, refusal to eat or drink 8.4%, suicidal ideation 6%, pregnancy 1.2%, homicide risk 1.2%. Maintenance ECT transitioned in 9.6% of patients. Termination reasons included saturation drop during application 3.6%, treatment refusal 3.6%, and decline in cognitive function 2.4%.

**CONCLUSIONS:** Electroconvulsive therapy (ECT) is a rapid and effective treatment method, particularly safe for use in life-threatening situations such as active suicidal ideation, attempts, or catatonic symptoms. While indicated during pregnancy, the number of patients receiving ECT due to pregnancy remains lower than expected. Additionally, patients with frequently recurring and treatment-resistant mood disorders are the most suitable candidates for maintenance ECT.

**Keywords:** electroconvulsive therapy, somatic treatment, psychiatric disorders



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