



## Oral Research Presentations

Hatice Gözde Akkın Gürbüz, Levent Turhan, Nilgun Şendil, Halim Ömer Kaşıkçı, Banu Salepçi, Derya Ipekcioglu, Canan Kuygun Karcı, Perihan Çam Ray, Ayşegül Yolga Tahiroğlu, Ayşe Avcı, Gonca Gül Çelik, Necmi Cekin, Nurdan Evliyaoğlu, Mehmet Alkanat, Hafize Özdemir, Egemen Akgün, Mehmet Emin Demirkol, Lut Tamam, Erman Esnafoglu, Doğa Sevinçok, Çağdaş Öykü Memiş, Bilge Doğan, Burcu Çakaloz, Ayşe Kutlu, Levent Sevinçok, Mehmet Emin Demirkol, Sema Nur Türkoğlu Dikmen, Yasir Şafak, Rıza Gökçer Tulacı, İlker Özdemir, Sema Baykara, Kübra Alban, Nazan Aydın, Hasan Mervan Aytaç, Doğan Yılmaz, Pınar Çetinay Aydın, Gökşen Yüksel Yalçın, Cana Canbay, Merve Terzioğlu, Aysel Özer, Ebru Altintas, Meryem Özlem Kütük, Ali Evren Tufan, Harika Gözükara Bağ, Güliz Şenormancı, Oya Güçlü, Cemil Çelik, Abdullah Bolu, Taner Öznur, Mehmet Sinan Aydın, Yusuf Tokgöz, Özcan Uzun, Sakır Gıca, Burç Çağrı Poyraz, Yağmur Sever Fidan, Hüseyin Güleç, Erdoğan Akça, Mesut Yıldız, Zeynep Nur Demirok Akça, Yusuf Öztürk, Gonca Özyurt, Kadir Özdel, Gonca Özyurt, Yusuf Öztürk, Kadir Özdel, Gulcin Elboga, Muhammet Berkay Ozyurek, Abdullah Bolu, Mehmet Sinan Aydın, Abdullah Akgün, Ali Coşkun, Cemil Çelik, Özcan Uzun, Taner Öznur, Ayhan Bilgiç, Rukiye Çolak Sivri, İbrahim Kılınç, Ahmet İnal, Uğur Eray, Çağdaş Öykü Memiş, Bilge Doğan, Murat Acat, Levent Sevinçok, Arif Önder, Aslı Sürer Adanır, Canem Kavurma, Öznur Bilaç, Yakup Doğan, Rukiye Ay, Çağatay Uğur, Betül Gül Alıç, Mehmet Gündüz, Özlem Ünal, Ömer Uçur, Özlem Özcan, Hasret Karabulut Gül, Demet Sağlam Aykut, Ahmet Tiryaki, Filiz Civil Arslan, Aslı Sürer Adanır, Arif Önder, Gül Alkan Bülbül, Ömer Yolcu, Aysel Uysal, Esin Özatalay, Erman Esnafoglu, Selma Cırık, Esin Erdogan, Dursun Hakan Delibas, Hazan Tomar Bozkurt, Rukiye Tekdemir, Vefa Erbasan, Okan İmre, Memduha Aydın, Kürşat Altınbaş, Başak Karabucak, Halime Tuna Çak Esen, Sadriye Ebru Çengel Kültür, Remzi Karaokur, Songül Atasavun Uysal, Nurhan Erbil, Meltem Çiğdem Kirazlı, Tayfun Kara, Ajda Mutlu Mihçioğlu, Semra Yılmaz, İsmail Akaltun, Abdullah Atli, Zübeyir Can, Emine Füsün Akyüz Çim, Aslıhan Okan İbiloğlu, Nilfer Şahin, Hülya Ertekin, Zehra Başar Kocagöz, Adnan Özçetin, Ahmet Ataoğlu, Şengül Cangür, Safiye Bahar Ölmez, Neslihan Yazar, Halit Necmi Uçar, Duygu Murat, Şafak Eray, Yaşar Tanır, Hatice Altun, Mehmet Hanifi Tanyeri, Mehmet Emin Büyükokuroğlu, Pelin Tanyeri, Oguz Mutlu, Füzuran Yıldız Akar, Güner Ulak, Bekir Faruk Erden, Feyza Hatice Sevgen, Hatice Altun, Asiye Arıcı, Fethiye Kılıçaslan, Mehmet Fatih Erbay, Cengiz Darılmaz, Fikret Poyraz Çökmüş, Serra Yüzeren, Didem Sücüllüoğlu Dikici, Orkun Aydın, Pınar Ünal Aydın, Fatma Akdeniz, Sığnem Öztekin, Emine Özge Çöldür, Kuzeymen Balıkçı, Ertuğrul Köroğlu, Ömer Aydemir, Hüseyin Kara, Özgen Özçelik, Mehmet Murat Balcı, Mehmet Murat Kuloğlu, Talya Tomar, Sığnem Öztekin, Fatma Akdeniz, Fatma Taneli, Arzu Oran, Gülgün Yılmaz Ovalı, Ömer Aydemir, Gamze Yapça Kaypaklı, Özge Metin, Perihan Çam Ray, Gonca

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## 10th International Congress on Psychopharmacology & 6th International Symposium on Child and Adolescent Psychopharmacology

[Abstract:0110] [Addiction]

### Cessation of cigarette smoking in adolescents: six months follow-up data

Hatice Gözde Akkın Gürbüz<sup>a</sup>, Levent Turhan<sup>a</sup>, Nilgun Şendil<sup>b</sup>, Halim Ömer Kaşıkçı<sup>c</sup> and Banu Salepçi<sup>d</sup>

<sup>a</sup>Kartal Dr. Lutfi Kırdar Research and Training Hospital, Istanbul, Turkey; <sup>b</sup>Kartal Suleyman Demirel Anatolian High School, Istanbul, Turkey; <sup>c</sup>Çekmece District Medical Services, Istanbul, Turkey; <sup>d</sup>Yeditepe University, Istanbul, Turkey

E-mail address: [gosdegos@gmail.com](mailto:gosdegos@gmail.com)

#### ABSTRACT

**Objective:** Many individuals with cigarette addiction are known for beginning to smoke cigarettes during adolescence years. In this study, we aimed to present the clinical outcomes of smoking cessation project conducted in an Anatolian school in Kartal district of Istanbul, Turkey.

**Methods:** Social and motivational studies were carried out on adolescent smokers after scanning in terms of smoking in an Anatolian school and 44 of these adolescents who are clinical requirements were evaluated and followed by Chest disease and child and adolescent mental health for six months. Carbonmonoxide (CO) measurements in the expiratory air and carboximeter (piCO smokerlyzer, Bedfont Scientific Ltd, England) were made at the first visit and follow-up. Simultaneously, K-SADS PL (Schedule for Schizophrenia and Affective disorders for School Age Children) was administered diagnostically in mental health evaluation.

**Results:** A total of 44 adolescents, 13 girl (29.5%) and 31 boy (70.5%), with a mean age of 17.31 were followed up. The mean age of initiation of cigarette smoking was  $14.2 \pm 1$  and 32 (82.7%) adolescent were found to have at least one smoker in their home. While 22.7% of adolescents did not try smoking cessation, 77.3% of them did. Six of these adolescents indicated that they did not smoke during the six months; 55.5% of these adolescents have at least one mental illness; the most common diagnoses were 25.0% ( $n=11$ ) of ADHD (Attention Deficit Hyperactivity Disorder) and 20% (10) of MD (Major Depression). While depression was significantly frequent in girls ( $p=0.043$ ), the frequency of ADHD was not significant in terms of gender. Depression presence was associated with early onset of cigarette smoking in males ( $p=0.019$ ), but not with females ( $p=0.394$ ). There was a statistically significant correlation between smoking cessation effort and age in the follow-up period ( $p=0.022$ ), and earlier adolescents stated that they wanted to quit smoking more. While there is no significant association between smoking cessation effort and mental disease, there was a statistically close relation with parent and sibling smoking ( $p=0.07$ ) and significant correlation with motivation and smoking cessation effort ( $p=0.016$ ).

**Conclusions:** Smoking cessation work in adolescents is much more difficult than in adults. Biological and social factors and peer impact influence interventions. In our study, very few adolescents stated to quit smoking for 6 months, and the rate of psychiatric illnesses among adolescents and the presence of individuals smoking at home were found to be quite high. It has been the result of these factors also affecting the success of adolescents to start smoking and to quit smoking.

#### KEYWORDS

Adolescence; smoking; cessation; mental health; psychopathology

[Abstract:0120][Psychopharmacology]

### Electroconvulsive therapy combined with antipsychotic therapy in the treatment of schizophrenia: symptom profile of the clinical response

Derya İpekcioglu

Bakirkoy Prof. Dr. Mazhar Osman Research and Training Hospital for Psychiatry, Neurology, and Neurosurgery, Istanbul, Turkey

E-mail address: [ipekciogluderya@hotmail.com](mailto:ipekciogluderya@hotmail.com)

**ABSTRACT**

**Objective:** The aim of the study is to examine the efficacy of electroconvulsive therapy (ECT) combined with antipsychotic (AP) medication on acute schizophrenic symptoms for patients who were diagnosed with schizophrenia.

**Methods:** Patients diagnosed with schizophrenia according to DSM-IV diagnostic criteria who would receive ECT were evaluated for inclusion in the study. Patients were evaluated by Brief Psychiatric Rating Scale (BPRS), Scale for the Assessment of Positive Symptoms (SAPS), Scale for the Assessment of Negative Symptoms (SANS), and Clinical Global Impression-Improvement (CGI-I) sub-scale before the first ECT, once in every two sessions and after the last session.

**Results:** A total of 11 male patients were included in the study. Patients showed significant improvements in BPRS scores at each evaluation, in comparison with baseline and a significant clinical improvement was found with the CGI-I sub-scale at the end of the treatment. In all SAPS sub-scores, a significant decrease was found, and the symptom group most rapidly responding to treatment was hallucinations and positive formal thought disorder. In all SANS sub-scores, a significant decrease was found, and the symptom group most rapidly responding was affective flattening or blunting.

**Conclusions:** One of the most important findings in the present study is the good response to treatment, providing a significant improvement both in positive and in negative symptoms. The most rapid response was in hallucinations, positive formal thought disorder, and affective flattening or blunting symptoms. It is possible that the most important limitation of our study is the small number of cases. Well-standardized studies with a double-blind, comparative, prospective design including a sufficient number of samples of both genders are required.

**KEYWORDS**

Schizophrenia; symptoms; antipsychotic medication; electroconvulsive therapy; treatment response

[Abstract:0127][Forensic Psychiatry]

## Evaluation of child marriage in a Turkish sample: eight years' data

Canan Kuygun Karci<sup>a</sup>, Perihan Çam Ray<sup>b</sup>, Ayşegül Yolga Tahiroğlu<sup>b</sup>, Ayşe Avcı<sup>b</sup>, Gonca Gül Çelik<sup>b</sup>, Necmi Çekin<sup>c</sup> and Nurdan Evliyaoğlu<sup>d</sup>

<sup>a</sup>Dr. Ekrem Tok Psychiatry Hospital, Department of Child and Adolescent Psychiatry, Adana, Turkey; <sup>b</sup>Cukurova University School of Medicine, Department of Child and Adolescent Psychiatry, Adana, Turkey; <sup>c</sup>Cukurova University School of Medicine, Department of forensic Medicine, Adana, Turkey; <sup>d</sup>Cukurova University School of Medicine, Department of Pediatrics, Adana, Turkey

E-mail address: [c\\_kuy@hotmail.com](mailto:c_kuy@hotmail.com)

**ABSTRACT**

**Objective:** Child marriage is considered as a form of sexual abuse that is still a common problem worldwide, especially in less developed and developing countries. The present study aims to examine 167 cases that were referred by courts to our clinic to prepare medical-legal reports between 2008 and 2016.

**Methods:** The study included 167 adolescents aged younger than 18 years, who were admitted to the courts for permission to marry. All participants were referred by the court to our clinic to prepare a medical-legal report regarding mental suitability for marriage. A child and adolescent psychiatrist recorded socio-demographic and other data during the interview. Data were collected via retrospective chart reviews from 2008 to 2016.

**Results:** Nearly all of the children were girls, only one was a boy; most were illiterate or graduates of elementary or secondary school; only 17 (10.2%) were still at high school. Ninety-five children (56.9%) had a religious marriage without a civil certificate. Sixty-three children (37.7%) were pregnant and 15 (9%) had a child. According to our medical reports, 91 of the children (54.5%) were considered unsuitable for marriage; 76 children who were pregnant and/or had a child (45.5%) were considered unsuitable for marriage, but in the event of a child being pregnant, we let the judge decide.

**Conclusions:** Our data showed that dropping out of school, low maternal/paternal education level, religiosity, cohabitation, and childbearing were significantly associated with child marriage. Further studies are needed to examine the prevalence of child marriage in Turkey.

**KEYWORDS**

Child marriage; child abuse; child bride; pregnancy; education

[Abstract:0131][Neuroscience: neuroimaging-genetics-biomarkers]

## Effects of menstrual cycle on attention in dual-task performance

Mehmet Alkanat<sup>a</sup>, Hafize Özdemir<sup>b</sup> and Egemen Akgün<sup>c</sup>



<sup>a</sup>Department of Physiology, Giresun University School of Medicine, Giresun, Turkey; <sup>b</sup>Department of Internal Medicine Nursing, School of Health Sciences, Giresun University, Giresun, Turkey; <sup>c</sup>Department of Medical Biology, Giresun University School of Medicine, Giresun, Turkey

E-mail address: [mehmet.alkanat@gmail.com](mailto:mehmet.alkanat@gmail.com)

#### ABSTRACT

**Objective:** The hormones produced by ovaries play an important role on brain structure and function in nervous system. Fluctuations in cognitive function during the menstrual cycle have shown various studies. The aim of this study was to evaluate the effects of menstrual cycle phases on both of manual motor and sensory-motor tasks with respect to cognitive performance. **Methods:** Forty regularly cycling women with a mean age of  $19.6 \pm 1.3$  (range: 18–22) participated in this study. All participants were right handed, determined with Edinburg Oldfield Handedness Inventory (the mean handedness score:  $76.1 \pm 15.5$ ). To validate ovulation between the phases, Luteinizing hormone (LH) surge in urine samples was determined with Laboquick test kits. Manual motor performance of each participant was tested with ten computerized 10-hole pegboard test. Auditory sensory-motor performance tests were recorded with PowerLab data acquisition system. The tests consisted of pseudorandom presentation of 80 stimuli. Target and non-target tones presenting with a probability of 0.25 were 500 Hz and 1000 Hz, respectively. Reaction times (RT) and error rate (ERR) were subjected to 2x2 analysis of variance (ANOVA) with repeated measures, with menstrual phases (follicular and luteal phase) and single- and dual-task condition as within-subject factors.

**Results:** There were no significant differences between follicular and luteal phases at single manual motor performance task scores within dominant and non-dominant hand preference ( $p > 0.05$ ). Moreover, there were no significant differences between follicular and luteal phases with respect either RT or ERR in single sensory-motor performance tasks ( $p > 0.05$ ). On the other hand, considering dual tasks condition, RT and ERR decreased in luteal phase compared with follicular phase scores ( $p < 0.001$ ).

**Conclusions:** Both hemispheres act as partially independent systems and each of them is specialized and dominated higher cognitive functions. Studies have shown that functional cerebral asymmetries are modulated by sexual hormones (in particular oestradiol and progesterone). It has been considered that these modulations are mediated by (i) activation of the dominant hemisphere for a given task, (ii) suppression of the non-dominant hemisphere, or (iii) modulation of the interaction between hemispheres. We found that RT and ERR decreased in luteal phase compared to follicular phase in dual-task condition. Our results demonstrated that hormonal fluctuations during the menstrual cycle modulate the divided-attentional process in dual task-paradigm. In sum, the present study seemed to indicate that intra- and interhemispheric connectivity and processing were affected by the phases of menstrual cycle.

#### KEYWORDS

Attention; cognitive function; dual-task; laterality; menstrual cycle

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[Abstract:0132][Non-biological treatments]

## Efficacy of light therapy on non-seasonal depression and inflammatory markers

Mehmet Emin Demirkol and Lut Tamam

Cukurova University School of Medicine, Department of Psychiatry, Adana

E-mail address: [emindemirkol@gmail.com](mailto:emindemirkol@gmail.com)

#### ABSTRACT

**Objective:** The aim of this study was to assess the efficacy of light therapy on non-seasonal depression and inflammatory marker levels.

**Methods:** In this study, which is based on retrospective file review, the effect of light therapy on depression and inflammatory markers (neutrophil-lymphocyte ratio, platelet-lymphocyte ratio, and mean platelet volume) in non-seasonal major depressive disorder patients who received antidepressant monotherapy was assessed after 1 week of treatment. Thirty-four patients with non-seasonal major depressive disorder who were hospitalized in the

#### KEYWORDS

Depression; inflammatory markers; light therapy; mean platelet volume; neutrophil-lymphocyte ratio; platelet-lymphocyte ratio

Cukurova University School of Medicine Psychiatric Inpatient Clinic between March 2017 and October 2017 and who did not respond to oral antidepressant treatment after 3 weeks were included in the study. While patients were receiving oral antidepressant treatment, Hamilton Depression Rating Scale and Beck Suicidal Ideation Scale were administered by the same clinician and blood was taken for biochemical analysis before and after light therapy.

**Results:** Changes in inflammatory parameters and depression scales after light therapy were statistically significant ( $p < 0.05$ ). The inflammatory markers (neutrophil-lymphocyte ratio, platelet-lymphocyte ratio, and mean platelet volume) were found to be higher in patients with MDD and significant correlations were found between depression scales and inflammatory markers after light therapy ( $p < 0.05$ ).

**Conclusions:** This preliminary study supports the efficacy of light therapy on non-seasonal depression in parallel with inflammatory markers.

[Abstract:0133][Autism]

## Increased neuregulin-1 levels in children with autism spectrum disorders

Erman Esnafoglu

Ordu University, School of Medicine

E-mail address: [ermanesnafoglu@yahoo.com.tr](mailto:ermanesnafoglu@yahoo.com.tr)

### ABSTRACT

**Objective:** Although schizophrenia and Autism spectrum disorders (ASD) are distinct disorders, they have some common clinical manifestations and common pathogenic mechanisms. Numerous genes are associated with these conditions. Among these genes, Neuregulin-1 (NG-1) has been shown to pose a risk for schizophrenia and some studies have shown that these gene polymorphisms are accompanied by schizophrenia. In addition, NG-1 gene polymorphism has been shown to be associated with ASD. NG-1 may exert a wide variety of functions, including some aspects of neuronal migration, axon guidance, synaptic transmission, oligodendroglial maturation, and neurite outgrowth. When we consider that NG-1 levels in ASD patients have not been examined until now and neurodevelopmental effects of NG-1, we aimed to examine the levels of peripheral NG-1 in ASD patients in this study.

**Methods:** Thirty-two ASD patients and 32 healthy control groups were included. Serum NG-1 levels were measured by ELISA.

**Results:** NG-1 levels were found to be significantly higher in ASD patients (mean  $\pm$  SD,  $10.80 \pm 4.78$ ) than in healthy controls (mean  $\pm$  SD,  $6.92 \pm 4.91$ ) ( $p = 0.004$ ).

**Conclusions:** According to these results, NG-1 has been shown to play a role in the pathogenesis of ASD. Further research is needed on the possible role of NG-1 in ASD patients. To the best of our knowledge, this is the first study to measure NG-1 in ASD patients.

### KEYWORDS

Neuregulin-1; autism spectrum disorders; autism; neurodevelopment; pathogenesis

[Abstract:0135][OCD]

## The association of obsessive-compulsive disorder symptomatology with schizotypal and autistic traits in a sample of adolescent patients

Doğa Sevinçok<sup>a</sup>, Çağdaş Öykü Memiş<sup>b</sup>, Bilge Doğan<sup>b</sup>, Burcu Çakaloğlu<sup>c</sup>, Ayşe Kutlu<sup>a</sup> and Levent Sevinçok<sup>b</sup>

<sup>a</sup>Dr. Behcet Uz Child Diseases and Pediatric Surgery Training and Research Hospital, Department of Child and Adolescent Psychiatry, Izmir, Turkey; <sup>b</sup>Adnan Menderes University, Department of Psychiatry, Aydın, Turkey; <sup>c</sup>Pamukkale University, Department of Child and Adolescent Psychiatry, Denizli, Turkey

E-mail address: [dsevincok@hotmail.com](mailto:dsevincok@hotmail.com)

### ABSTRACT

**Objective:** Recent studies demonstrated that Obsessive-Compulsive Disorder (OCD) had been clinically and aetiologically heterogeneous and that childhood-onset OCD may represent a phenomenologically and aetiologically distinct subtype of OCD. In 50% to 80% of OCD cases, symptoms begin before 18 years of age, which indicates the importance of OCD as a developmental disorder. Autism Spectrum Disorders (ASD) are a group of childhood-onset neurodevelopmental disorder characterized by disabilities in social interaction and communication, and by limited, repetitive behaviours and interests with a prevalence of 0.6% to

### KEYWORDS

Adolescence; autism; obsessive-compulsive disorder; schizotypy; subtype



2.0% in the general population. Under current diagnostic criteria, symptoms of ASD are required to have presented from an early period of development. Recent studies indicated that there had been an autistic subtype of OCD characterized by more severe and treatment-resistant OCD. Nearly half of the OCD patients have mild-to-severe levels of schizotypal traits (STs), indicating a schizotypal subtype of OCD. Several studies have shown that STs in OCD have been associated with earlier onset of OCD, and more severe OCD symptoms. Although autistic and schizotypal subtypes of OCD are previously suggested, the differences between the relationships of ATs and STs with OCD in adolescent patients are not well known. In the present study, our primary objective was to examine the associations of autistic traits (ATs) and STs with age at onset and the severity of OCD in a sample of adolescent OCD patients. We hypothesized that ATs and STs are differentially related to OCD symptomatology in adolescents.

**Methods:** Twenty-five adolescent OCD patients (aged between 11 and 18; 12 M/13F) were assessed through The Kiddie Schedule for Affective Disorders and Schizophrenia-Present state and Lifetime version, Autism-Spectrum Quotient (AQ), Schizotypal Personality Questionnaire-Brief form (SPQ-B), and Children's Yale-Brown Obsessive-Compulsive Scale (CYBOCS).

**Results:** The current age and age at onset of OCD were not correlated with AQ and SPQ-B scores. We found that total scores of AQ were related with the number of compulsions, total and interpersonal, and disorganized subscale scores of SPQ-B. Total scores of SPQ-B were significantly correlated with the mean number of obsessions.

**Conclusions:** Our results demonstrated that there was a significant association between ATs and STs traits in adolescent OCD patients. STs seemed to be related to the number of obsessions, while autistic symptoms were found to be associated with compulsions. Despite the small sample size, our preliminary data suggest that STs and ATs are correlated, but might represent distinct forms of OCD in adolescent patients. Future research with larger samples might help us to better understand the complex relationships ATs and STs in adolescents with OCD.

[Abstract:0136][Mood disorders]

## Comparison of patients with bipolar disorder depressive episode and major depressive disorder in terms of diseases' characteristics and pain perception

Mehmet Emin Demirkol

Çukurova University School of Medicine, Department of Psychiatry, Adana, Turkey

E-mail address: [emindemirkol@gmail.com](mailto:emindemirkol@gmail.com)

### ABSTRACT

**Objective:** In this study, it was aimed to compare the patients with major depressive disorder (MDD) with those with bipolar disorder depressive episode (BD) in terms of depressive episode's characteristics and pain perception

**Methods:** Forty-five patients with MDD, 40 patients with BD who were treated between April 1, 2017 and October 1, 2017 in Cukurova University School of Medicine's Department of Psychiatry and 52 healthy volunteers were included in the study. Depressive episode's characteristics were evaluated by using Beck Depression Inventory (BDI), Beck Hopelessness Scale (BHS), Beck Suicidal Ideation Scale (BSIS, and Visual Analogue Scale (VAS) was used to evaluate pain perception. A  $p$ -value of  $<0.05$  was considered as statistically significant.

**Results:** The BDI, BHS, BSIS, and VAS scores were significantly higher in both MDD and BD patients compared to the control group. In comparison of MDD and BD groups, it was found that BHS scores were higher in BD patients and VAS scores were significantly higher in the MDD group.

**Conclusions:** Suicide is one of the diagnostic criteria for depression according to DSM-5 and suicidality is expected to be higher in the MDD and BD groups than the controls. Recurrent manic and / or depressive episodes in bipolar disorder may reduce the motivation of patients to recover and may lead to despair. So, it can be explained that the BHS scores are higher in the BD group than in the MDD group in our study. Physical, psychological pain perception, and somatic complaints tend to increase in depressive episodes. In our study, VAS scores of MDD and BD patients were significantly higher than the control group and patients with MDD had higher VAS scores than the BD group.

### KEYWORDS

Bipolar disorder; depressive episode; hopelessness; major depressive disorder; pain perception

[Abstract:0141][Other]

## Comparison of early maladaptive schemas in vaginismus and control group

Sema Nur Türkoğlu Dikmen<sup>a</sup>, Yasir Şafak<sup>b</sup>, Rıza Gökçer Tulacı<sup>c</sup> and İlker Özdemir<sup>d</sup>

<sup>a</sup>Aksaray University Aksaray Education and Training Hospital, Aksaray, Turkey; <sup>b</sup>Dişkapı Yıldırım Beyazıt Education and Training Hospital, Ankara, Turkey; <sup>c</sup>Uşak University Uşak Education and Training Hospital, Uşak, Turkey; <sup>d</sup>Kütahya Dr. Mustafa Kalemli Tavşanlı Government Hospital, Kütahya, Turkey

E-mail address: [gokcertulaci@gmail.com](mailto:gokcertulaci@gmail.com)

#### ABSTRACT

**Objective:** There are several studies about the importance of cognition in vaginismus, but studies on profound cognitive structures in the vaginismus are very rare. Schema is defined as abstract cognitive plan existing in our mind before meeting new information, which acts as a guide to interpret incoming data and solve problems. Schemas are at the deepest level of the cognitive level and they are usually located outside the area of awareness which may predispose to depression, anxiety disorders, relationship problems, and sexual dysfunctions. In schema studies done about sexual dysfunctions, it has been shown that there are strong correlations between early maladaptive schemas (withdrawal, flaw / shame, vulnerability and obedience to danger) and different psychopathology dimensions. There are limited numbers of studies associated with schemas in vaginismus. The aim of our study was to demonstrate early maladaptive schemas which might be the underlying cause of vaginismus.

**Methods:** Forty-three patients with vaginismus and 30 healthy controls were enrolled in this study at the Dişkapı Yıldırım Beyazıt Training and Research Hospital's Psychiatry Outpatient Clinic of between 2013 and 2014. Participants were assessed with the socio-demographic data form and the Young Schema Questionnaire - Short Form Version 3 (YSQ-S3).

**Results:** There were no significant differences between the two groups in terms of socio-demographic characteristics such as average education level, occupation, age of marriage, place of childhood (rural / urban), place of residence, and monthly income. In our study, subscale scores of "pessimism," "approval seeking," "punishment," "resistance to threats," and "high standards" were significantly higher in the vaginismus group.

**Conclusions:** In the vaginismus group, some early maladaptive schemas were significantly higher than in the control group. The schema features observed in the vaginismus group in our study are mostly related to anxiety and avoidance. In a few studies, there are consensus that vaginismus may have phobic. A study examining the results of cognitive-behavioural therapy in vaginismus patients in 2017 also showed that the therapy reduced anxiety, and so improved sexual performance. From the cognitive perspective, the interpretation and perception errors are responsible for the development of vaginismus. The results of our study support the phobic features of the schematic structure of vaginismus. In addition to conventional vaginismus treatment, cognitive interventions to aimed problematic schemas (schema therapy) may have additional benefits in the treatment-resistant cases. More studies are needed to support our work and to use these results in treatment.

#### KEYWORDS

Anxiety; avoidance; cognition; schema; vaginismus

[Abstract:0143][Addiction]

## The relationship between self-mutilation, suicide attempt history, and defence mechanisms in patients with opiate use disorder

Sema Baykara<sup>a</sup> and Kübra Alban<sup>b</sup>

<sup>a</sup>Firat University, School of Medicine, Department of Psychiatry, Elazığ, Turkey; <sup>b</sup>Elazığ Mental Health Hospital, Elazığ, Turkey

E-mail address: [semabaykara@hotmail.com](mailto:semabaykara@hotmail.com)

#### ABSTRACT

**Objective:** The aim of this study was to examine the relationship between defence mechanisms and self-mutilative behaviours and suicide attempt in opiate use disorder (OUD) patients.

**Methods:** The study group was formed of 100 inpatients with OUD. The Sociodemographic and Clinical Data Form, Defense Style Questionnaire-40 (DSQ 40), Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI) were administered.

**Results:** Passive aggression, somatization, and immature factor were higher in OUD with self-mutilative behaviour (SMB) than without SMB. Anticipation was higher in those with SMB than in those without and no relationship was found between other mature defence mechanisms and SMB. There were no significant correlations between SMB and Beck anxiety and Beck depression scores. Passive aggression, somatization, and immature factor defence mechanisms were higher in patients with suicide attempt history (SAH). There were no

#### KEYWORDS

Suicide attempt; defence mechanisms; opioid use disorder; self-mutilation

correlations between SAH and mature defence mechanisms in OUD patients. Beck depression and Beck anxiety scores were higher in the presence of SAH.

**Conclusions:** It was shown that immature defence styles were used more frequently by patients with SMB and SAH. SAH was associated with anxiety and depression scores and SMB has been used as a sort of coping mechanism and has not been associated with anxiety and depression scores in OUD. The application of therapeutic programs for the more effective use of mature defences, as well as specific pharmacotherapies, in patients with OUD can be considered. Considering that the SAH is associated with high anxiety and depression scores, with planned pharmacotherapy, the success rate of treatment can be increased.

[Abstract:0144][Psychopharmacology]

## Extrapyramidal and metabolic side effects of haloperidol decanoate: a 12-month follow-up study

Nazan Aydın, Hasan Mervan Aytaç, Doğan Yılmaz, Pınar Çetinay Aydın, Gökşen Yüksel Yalçın, Cana Canbay, Merve Terzioğlu and Aysel Özer

Bakirkoy Prof. Dr. Mazhar Osman Research and Training Hospital for Psychiatry, Neurology, and Neurosurgery, Istanbul, Turkey

E-mail address: [mervan176@hotmail.com](mailto:mervan176@hotmail.com)

### ABSTRACT

**Objective:** It is believed that first-generation antipsychotics may cause more extrapyramidal side effects and second-generation antipsychotics also may cause more metabolic syndrome, cardiovascular disease, and type-2 diabetes. However, there are still a lot of controversial studies about this subject in the literature. In particular, recent studies have shown that there is no difference in terms of efficacy and drug tolerability between these two drug groups. The aim of our study is to monitor if extrapyramidal side effects and changes of metabolic parameters were developed in a 12-month follow-up study with Haloperidol Decanoate (HD).

**Methods:** Fifty-four patients who were diagnosed with schizophrenia and hospitalized in Bakirkoy Mental Health and Neurological Diseases Hospital consecutively were included in this naturalistic study. The first examination at the inpatient clinic was named as Assessment 0, the interview after HD applied was named as Assessment 1. The next four Assessments (Assessment 2–5) were conducted as weekly follow-up. In the next month, it was organized as twice a week (Assessment 6–7) and next assessments (8–18) once in a month. The following parameters except the clinical efficacy and plasma levels were evaluated:

- (1) Assessment of clinical efficacy of haloperidol decanoate and functionality
- (2) Plasma levels of haloperidol
- (3) Extrapyramidal symptoms and metabolic side effect
- (4) The compliance of long-term treatment

**Results:** Fifty-four patients with schizophrenia consisting of 41 women and 13 men were included in the study. There were no severe side effects like neuroleptic malignant syndrome and acute dystonia during our follow-up study. There were only significant correlations between the beginning high dose of haloperidol and EPS scores in the positive direction. There were no statistically significant differences between measurements in the weight variable, but there was a significant difference in waist circumference. The first measurement of waist circumference was significantly higher from both the mid- and final measurements. Among all of these blood measures, only prolactin levels increased significantly over time with the use of haloperidol. There were no statistically significant differences between values of other metabolic parameters (fasting blood glucose, triglyceride, HDL, iron, Hgb, PRL, and HbA1c). In our study, half of the patients still used haloperidol depot at the end of the year and the remaining half of these patients had the following percentages: 14.8% ( $n=8$ ) had an atypical antipsychotic, 7.4% ( $n=4$ ) were treated with mood stabilizer and another antipsychotic, 7.4% ( $n=4$ ) had another depot antipsychotic, and 20.4% ( $n=11$ ) had left treatment completely. When the causes of dropout from follow-up study were evaluated, it was learnt that 37.14% of patients had changed their treatment after clinician changing, 37.14% of patients discontinued treatment since lack of social support, and 25.71% of patients left treatment with their own desire or side effects.

**Conclusions:** This study pointed out that the HD was still an effective and tolerable drug for patients with schizophrenia. It is also important to replicate these results in a hospital where severe patients with non-adherence story are treated. As a result, clinicians must choose the best treatment to meet the needs of their patients, leaving the fears and prejudices about the first-generation antipsychotics.

### KEYWORDS

Haloperidol decanoate; extrapyramidal; metabolic; side effects; compliance

[Abstract:0145][OCD]

## Alexithymia may moderate suicidal ideation in patients with social anxiety disorder

Ebru Altintas<sup>a</sup>, Meryem Özlem Kütük<sup>b</sup>, Ali Evren Tufan<sup>c</sup> and Harika Gözükara Bağ<sup>d</sup>

<sup>a</sup>Baskent University School of Medicine, Department of Psychiatry, Adana, Turkey; <sup>b</sup>Baskent University School of Medicine, Department of Child and adolescent Psychiatry, Adana, Turkey; <sup>c</sup>Abant İzzet Baysal University, School of Medicine, Department of Child and adolescent Psychiatry, Bolu, Turkey; <sup>d</sup>Inonu University, Department of Biostatistics and Medical Informatics, Malatya, Turkey

E-mail address: [yurdagulebru@hotmail.com](mailto:yurdagulebru@hotmail.com)

### ABSTRACT

**Objective:** In this study, we aimed to determine the relationship between alexithymia and suicidal ideation/factors associated with suicidal ideation in patients with social anxiety disorder (SAD). We also aimed to determine whether alexithymia is a predictor of suicidal ideation seen in SAD patients.

**Methods:** A total of 164 SAD ( $n = 57$ ), Panic Disorder (PD) ( $n = 58$ ), healthy controls (HC) ( $n = 49$ ) subjects (according to DSM-5) were included in the study. Alexithymia was measured by Toronto Alexithymia Scale-20 (TAS-20), suicidal ideation was measured by Suicidal Ideation Scale (SIS), social anxiety levels were evaluated with Liebowitz Social Anxiety Scale (LSAS), and anxiety and depression levels were evaluated with Beck Depression (BDI) and Beck Anxiety (BAI), State and Trait Anxiety Scales (STAI I-II).

**Results:** Alexithymia rate was found to be 38.6% in SAD patients and 29.3% in PD patients. In SAD groups, significant correlation was found between the total TAS-20 score, its subscales, and SIS ( $p < 0.05$ ). In path analysis, it was found that TAS 20 total scores predicted SIS scores only indirectly and via their effects on trait anxiety and subjective depressive symptoms.

**Conclusions:** In alexithymic SAD patients, suicidal ideation may occur when comorbid depression is present. Based upon these findings, alexithymia may not be a strong predictor of suicidal ideation for preventing suicidal attempts in patients with social anxiety disorder.

### KEYWORDS

Alexithymia; suicidal ideation; social anxiety disorder; panic disorder; depression

### Socio-demographic and psychometric measures of participants

	SAD ( $n = 57$ )	PD ( $n = 58$ )	HC ( $n = 49$ )	$p$
Age (years)	24.7 (7.5)	32.8 (8.5)	28.1 (6.6)	0.00
Age at onset (years)	13.8 (4.2)	27.2 (8.3)	-	0.00
Age at 1st treatment (years)	23.3 (8.2)	29.6 (8.0)	-	0.00
Treatment duration (days)	254.4 (482.6)	758.7 (960.1)	-	0.00
LSAS- Anxiety/ Fear	66.7 (9.6)	43.9 (12.2)	40.1 (9.2)	0.00
LSAS- Avoidance	64.4 (10.9)	43.8 (12.6)	39.7 (8.9)	0.00
BAI	25.1 (11.5)	32.0 (15.2)	3.4 (3.1)	0.00
STAI-I	41.3 (6.5)	41.8 (5.2)	43.6 (6.3)	0.14
STAI-II	51.8 (6.1)	50.3 (4.9)	44.3 (3.6)	0.00
BDI	20.0 (10.8)	17.0 (10.9)	4.1 (3.3)	0.00
SIS	7.0 (3.3)	4.1 (3.6)	1.0 (1.5)	0.00
TAS-20 Total	58.3 (8.4)	60.1 (9.0)	49.9 (7.0)	0.00
TAS-20-DIF	18.8 (8.1)	20.2 (6.4)	10.9 (3.6)	0.00
TAS-20-DDF	15.2 (3.0)	14.7 (2.8)	12.7 (3.1)	0.00
TAS-20-EOT	24.2 (4.0)	25.2 (4.0)	26.3 (4.1)	0.03

SAD: social anxiety disorder, PD: panic disorder, HC: healthy controls.

LSAS: Liebowitz Social Anxiety Scale, BAI: Beck Anxiety Inventory, STAI-I: State- Trait Anxiety Inventory- State, STAI-II: State- Trait Anxiety Inventory- Trait, BDI: Beck Depression Inventory, SIS: Suicidal Ideation Scale, TAS-20: Toronto Alexithymia Scale, DIF: Difficulty Identifying Feelings, DDF: Difficulty Describing Feelings, EOT: Externally Oriented Thought

[Abstract:0148][Psychosomatic Medicine and Liaison Psychiatry]

## Comparison between coping strategies and anger expression patterns in morbidly obese patients and healthy controls

Güliz Şenormancı<sup>a</sup> and Oya Güçlü<sup>b</sup>

<sup>a</sup>Health Sciences University Bursa Yüksek İhtisas Training and Research Hospital, Department of Psychiatry, Bursa, Turkey; <sup>b</sup>Bakirkoy Prof. Dr. Mazhar Osman Research and Training Hospital for Psychiatry, Neurology, and Neurosurgery, Istanbul, Turkey

E-mail address: [gulizsenormanci@yahoo.com](mailto:gulizsenormanci@yahoo.com)

**ABSTRACT**

**Objective:** In the present study, it was aimed to evaluate anger expression patterns and coping strategies in morbidly obese patients.

**Methods:** The study population consisted of 128 patients who presented for bariatric surgery, who were referred to psychiatric evaluation and who accepted to participate in the study, and 100 healthy controls with similar demographic data, body mass index of 25–30, and no previous psychiatric referral. The participants were assessed by the demographic form that was prepared by researchers, the State-Trait Anger Expression Inventory (STAXI), and the Coping Inventory (COPE).

**Results:** The anger control scores in the morbidly obese group were significantly higher than in the control group, while the anger-in, anger-out, and trait anger scores were significantly lower ( $p < 0.05$ ). When the coping strategies were compared, scores of mental disengagement, restraint coping, substance use, and acceptance were significantly higher in the morbidly obese group than in the controls ( $p < 0.05$ ). There were no significant differences in other coping strategies ( $p > 0.05$ ).

**Conclusions:** In this oral presentation, anger expression and coping skills will be discussed in light of the literature in patients applying for bariatric surgery.

**KEYWORDS**

Morbid obesity; bariatric surgery; coping strategies; anger expression; COPE; STAXI

[Abstract:0156][Mood disorders]

## Changes in Pre- and Post-electroconvulsive Therapy Serum Myostatin Levels in Patients with Treatment-resistant Depression

Cemil Çelik, Abdullah Bolu, Taner Öznur, Mehmet Sinan Aydın, Yusuf Tokgöz and Özcan Uzun

Gulhane Medical Faculty, Department of Psychiatry, Ankara, Turkey

E-mail address: [abdullah\\_bolu@yahoo.com](mailto:abdullah_bolu@yahoo.com)

**ABSTRACT**

**Objective:** Myostatin is a growth factor which is examined regarding musculoskeletal system. Although its effect on muscle mass is known, it is considered likely having other unknown effects as well, particularly on central nervous system. In this study, we aimed to determine the effects of electroconvulsive therapy (ECT) on myostatin in patients with treatment-resistant depression (TRD).

**Methods:** Twenty-nine patients with treatment-resistant major depression and thirty healthy volunteers were included in the study. Pre- and post-ECT levels of myostatin were compared; also, these results were compared to healthy controls.

**Results:** As a result of this study, it was found that electroconvulsive therapy affects serum myostatin levels to a significant degree ( $t = 5.00$ ;  $p < 0.05$ ). It is also found that there was a significant relationship between serum myostatin levels and depression scores ( $r = 0.392$ ,  $p = 0.035$ ).

**Conclusions:** With the present study and similar ones, it can be understood how electroconvulsive therapy achieves its effectiveness at the molecular biological level.

**KEYWORDS**

Electroconvulsive therapy; myostatin; treatment-resistant depression

[Abstract:0158][Psychopharmacology]

## Clinical Correlation and Predictive Value of Electrophysiological Variables on Clinical Response to Clozapine Treatment in Patients Diagnosed with Treatment-resistant Schizophrenia

Sakir Gica<sup>a</sup>, Burç Çağrı Poyraz<sup>b</sup>, Yağmur Sever Fidan<sup>c</sup> and Hüseyin Güleç<sup>c</sup>

<sup>a</sup>Bakirkoy Prof. Dr. Mazhar Osman Research and Training Hospital for Psychiatry, Neurology, and Neurosurgery, Istanbul, Turkey; <sup>b</sup>Istanbul University Cerrahpasa School of Medicine, Department of Psychiatry, Istanbul, Turkey; <sup>c</sup>Erenkoy Research and Training Hospital for Psychiatric and Neurological Disorders, Department of Psychiatry, Istanbul, Turkey

E-mail address: [sakirgica@hotmail.com](mailto:sakirgica@hotmail.com)

**ABSTRACT**

**Objective:** The aim of this study is to determine electrophysiological variables, consisting Quantitative EEG (QEEG) and Event-Related Potentials (ERP), which could be predict clinical response to clozapine in treatment-resistant schizophrenia, and to examine the relationship between these changes and clinical variables such as severity of disease, functionality, and cognitive functions.

**KEYWORDS**

QEEG; auditory P300; cognition; predict treatment response; treatment-resistant schizophrenia



**Methods:** This study was performed in schizophrenia inpatients at the Erenkoy Research and Training Hospital for Psychiatric and Neurological Disorders who attended between April 2015 and February 2016. Twenty-three treatment-resistant schizophrenic patients (18 male, 5 female) were included in this study and these patients were followed up for six months. Participants were evaluated before medication, the first week after start of the drug, the second week, during the first month, and at six months. Electrophysiological investigation was performed in all evaluations. Cognitive functions were evaluated in a week after the start of clozapine and at the end of the six-month follow-up period. Positive and Negative Syndrome Scale (PANSS) and General Functionality Level Scale (GAF) were used for clinical evaluation of patients.

**Results:** In patients who responded to drug while the significant decrease in PANSS scores were detected in the first month of treatment, an increase in absolute theta wave activity was determined in the first weeks of treatment. When examining the variables related to ERP, there was an increase in the amplitude of P300 in patients who responded to drug. Besides, P300 amplitude changes have been found to be associated with the set shifting test results.

**Conclusions:** In patients who respond to clozapine, absolute brain theta activity increases in the early stages of treatment and this increase was associated with clinical improvement. Increase in theta activity could be observed from the first week of treatment prior to clinical response. Therefore, it has been observed that after the start of clozapine treatment, the global increase in theta activity could be a marker that predicts clinical response to clozapine. Moreover, in patients who responded to clozapine, P300 amplitudes were increased in later stages of the treatment. However, changes in P300 amplitudes, due to be determined in late periods, can be a marker to show adequate clinical response rather than predict the clinical response. Our findings should be confirmed with a larger sample size and longer follow-up studies.

[Abstract:0165][Mood disorders]

## Comparison of unipolar depression and bipolar depression patient groups in terms of somatic symptoms

Erdoğan Akça, Mesut Yıldız and Zeynep Nur Demirok Akça

Psychiatry, Marmara University School of Medicine, İstanbul, Turkey

E-mail address: [mesutdr@gmail.com](mailto:mesutdr@gmail.com)

### ABSTRACT

**Objective:** Medically unexplained somatic symptoms frequently accompany depression and anxiety, often leading to the search for a different medical solution for the person. To date, question to what extent somatic manifestations of bipolar depression are different in terms of quality and frequency from unipolar depression has not been adequately researched. These two disorders maintain the updated need to identify areas of symptomatological differentiation. In this study, it is aimed to compare the frequency and quality of somatic symptoms between unipolar depression and bipolar depression and address the question to what extent these symptoms contribute to symptomatological differentiation.

**Methods:** Fifty patients diagnosed with unipolar depression (UD) and fifty patients diagnosed with bipolar depression (BD) who presented to the Marmara University School of Medicine's Pendik Training and Research Hospital Psychiatry Outpatient Clinic were enrolled in the study. The subjects in both groups were administered the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) to confirm their diagnosis and to determine their psychiatric comorbidities once their informed consents were obtained. The Montgomery Asberg Depression Scale (MADRS) was used to determine the severity of depression, Sociodemographic Data Form was used to determine socio-demographic data and clinical history and the Bradford Somatic Symptom Inventory (BSI) to determine the nature and severity of somatic complaints.

**Results:** There were no significant differences between the UD and BD groups in terms of BSI total scores and somatic symptoms ( $p > 0.05$ ). According to evaluation by smoking, BSI total scores were higher in the smokers of the UD group, the smokers of the bipolar-I disorder group, and in all smokers than in non-smokers. There was a significant positive correlation between depression severity (MADRS) and somatic symptom severity (BSI) in all participants and in both groups. In both groups, depression severity was found to predict severity of the somatic symptoms.

**Conclusions:** There were no statistical differences in terms of somatic symptom levels between UD and BD and it was concluded that the severity of depression was a variable predicting somatic symptoms levels. However, some statistical observations point to the need for larger sample-sized studies.

### KEYWORDS

Unipolar depression; bipolar depression; Bradford Somatic Symptom Inventory; medically unexplained somatic symptoms



[Abstract:0169][Anxiety disorders]

## Emotional Schemas in Adolescents Diagnosed with Anxiety Disorders

Yusuf Öztürk<sup>a</sup>, Gonca Özyurt<sup>b</sup> and Kadir Özdel<sup>c</sup>

<sup>a</sup>Abant İzzet Baysal University, Department of Child and Adolescent Psychiatry, Bolu, Turkey; <sup>b</sup>İzmir Katip Celebi University, Department of Child and Adolescent Psychiatry, İzmir, Turkey; <sup>c</sup>Diskapi Training and Research Hospital, Department of Psychiatry, Ankara, Turkey

E-mail address: [yusuf26es@hotmail.com](mailto:yusuf26es@hotmail.com)

### ABSTRACT

**Objective:** Anxiety disorders (AD) are among the most common psychiatric conditions in adolescents. For AD in general, community studies show a prevalence of 9–32% in childhood and adolescence. Dysfunctional emotional schemas were found more prevalent in adults and adolescents diagnosed with AD than healthy individuals. The chronic overactivity of schemas related with themes of vulnerability and danger causes pathological manifestations of the anxiety. In this study, we aimed to compare AD and healthy controls in terms of the schemas that can be related to pathological anxiety.

**Methods:** The study group consisted of 89 adolescents with AD; the control group (102 adolescents) comprised of patients from other clinics at the hospital. The Kiddie Schedule for Affective Disorders and Schizophrenia for School Aged Children-Present and Lifetime Version (K-SADS-PL) was used to diagnose in two groups. The Screen for Child Anxiety Related Emotional Disorders (SCARED) and Beck Depression Inventory (BDI) were given in the both groups. Emotional schemas were assessed by the Leahy Emotional Schema Scale (LESS), and early maladaptive schemas were assessed by the Young Schema Questionnaire-Long Form, Third Edition (YSQ-L3). The data of the study were evaluated using the Statistical Package for the Social Sciences (SPSS). All tests were two-tailed with  $p$ -values  $<0.05$  considered significant.

**Result:** The average age of the adolescents in the AD was  $17.04 \pm 0.68$  (64 girls and 25 boys) years, and the average age of the adolescents in the control group was  $17.07 \pm 0.69$  (70 girls and 32 boys) years. There were no significant differences between the two groups in terms of socio-demographic data ( $p > 0.05$ ). When data of AD and healthy control groups were compared in terms of LESS total scores, it was found that the AD group obtained statistically significant high scores compared to the healthy control group ( $p < 0.001$ ). Statistically significant difference was found in the YSQ-L3 sub-scores except for “unrelenting standards” sub-scale when comparing the two groups. It was also found statistically significant difference between comorbid major depressive disorder ( $n = 35$ ) and no comorbidity ( $n = 54$ ) in the AD group in terms of LEHH total score ( $p = < 0.001$ ), and YSQ-L3 emotional deprivation subscale ( $p = 0.012$ ), abandonment subscale ( $p = 0.001$ ), social isolation subscale ( $p = < 0.001$ ), failure subscale ( $p = 0.003$ ), and vulnerability to harm & illness subscale ( $p = 0.002$ ).

**Conclusions:** In our study, problems in the emotional schema in the AD group were found to be more compared to healthy controls, similar to the previous literature. It was also found that comorbid major depressive disorder in the AD group has more pathological emotional schemas than with only AD diagnosis. Our study emphasizes the importance of interventions such as schema therapy, cognitive behavioural therapy for pathological emotional schemas in the adolescents with AD diagnosis, especially comorbid major depressive disorder. However, further studies with larger sample size may allow us to have more knowledge in this area.

### KEYWORDS

Anxiety disorder; adolescent; emotional; schema; cognitive

[Abstract:0170][Anxiety disorders]

## Cognitive Distortions in Adolescents Diagnosed with Anxiety Disorders

Gonca Özyurt<sup>a</sup>, Yusuf Öztürk<sup>b</sup> and Kadir Özdel<sup>c</sup>

<sup>a</sup>İzmir Katip Celebi University, Department of Child and Adolescent Psychiatry, İzmir, Turkey; <sup>b</sup>Abant İzzet Baysal University, Department of Child and Adolescent Psychiatry, Bolu, Turkey; <sup>c</sup>Diskapi Training and Research Hospital, Department of Psychiatry, Ankara, Turkey

E-mail address: [yusuf26es@hotmail.com](mailto:yusuf26es@hotmail.com)

### ABSTRACT

**Objective:** Anxiety disorders (AD) are among the most common psychiatric conditions in adolescents with prevalence rates of between 9% and 32%. Studies have shown cognitive distortions in adolescents with AD. These cognitive distortions are catastrophizing, overgeneralization, personalization, and minimizing the positive. In this study, we aimed to compare AD and healthy controls in terms of cognitive distortions.

### KEYWORDS

Anxiety; disorder; adolescent; cognitive; distortion

**Methods:** The study group consisted of 89 adolescents with AD; the control group (102 adolescents) comprised of patients from other clinics at hospital. The Kiddie Schedule for Affective Disorders and Schizophrenia for School Aged Children-Present and Lifetime Version (K-SADS-PL) was used to diagnose in two groups. The Screen for Child Anxiety Related Emotional Disorders (SCARED) and Beck Depression Inventory (BDI) were given in both groups. Adolescents' cognitive properties were assessed using The Cognitive Distortions Scale (CDS). The data of the study were evaluated using the Statistical Package for the Social Sciences (SPSS). All tests were two-tailed with  $p$ -values  $< 0.05$  considered significant.

**Result:** The average age of the adolescents in the AD was  $17.04 \pm 0.68$  (64 girls and 25 boys) years, and the average age of the adolescents in the control group was  $17.07 \pm 0.69$  (70 girls and 32 boys) years. There were no significant differences between the two groups in terms of socio-demographic data ( $p > 0.05$ ). When the data of AD and control groups were compared in terms of CDS subscale scores, it was found that the AD group obtained statistically significant high scores in mindreading, all-or-nothing thinking, emotional reasoning, labelling, mental filter, overgeneralization, personalization, should statements, minimizing the positive. There was no statistically significant difference in catastrophizing subscale. Statistically significant differences were found in the CDS interpersonal (IP), personal achievement (PA) domains and total scores when comparing the two groups. It was also found statistically significant difference between the ones with comorbid major depressive disorder ( $n = 35$ ) and with no comorbidity ( $n = 54$ ) in terms of CDS IP, PA, and total scores ( $p = 0.02$ ,  $p < 0.001$ ,  $p < 0.001$  respectively).

**Conclusions:** In our study, severity of cognitive distortions in the AD group was higher than healthy controls as in the previous literature. It was also found that adolescents with comorbid major depressive disorder in the AD group have more cognitive distortions than the ones only with AD diagnosis. Our study emphasizes the importance of interventions such as cognitive behavioural therapy for cognitive distortions in the adolescents with AD diagnosis, especially comorbid major depressive disorder. However, further studies with larger sample size may allow us to have more knowledge in this area.

[Abstract:0176][Mood disorders]

## Evaluation of uric acid levels in major depression and bipolar disorder patients

Gulcin Elboga and Muhammet Berkay Ozyurek

Gaziantep University School of Medicine Department of Psychiatry

E-mail address: [berkay\\_ozyurek@hotmail.com](mailto:berkay_ozyurek@hotmail.com)

### ABSTRACT

**Objective:** The purinergic system plays a role in the regulation of mood, motor activity, cognitive function, sleep, and behaviour. The last product of purine metabolism is uric acid. This study aimed to evaluate whether uric acid levels in patients with unipolar depression and bipolar disorder depressive episodes were different from healthy controls and to determine the clinical parameters that might be related to uric acid level.

**Methods:** Thirty-one major depressive disorder and 31 bipolar disorder depressive episodes were included in the study and 31 healthy control groups without a known psychiatric disorder story were included in the study between April 2015 and November 2017 at Gaziantep University School of Medicine's Psychiatry Clinic. Patients' diagnoses were determined according to DSM-5 and Hamilton Depression Scale was used in assessing disease severity. Patients with medication (lithium, etc.) and other diseases that may affect uric acid metabolism were not included. Plasma uric acid levels were recorded in all groups by reviewing existing medical records. Descriptive statistics and inferential statistics were performed. SPSS 17.0 was used for analysis. Statistical significance was set at  $p < 0.05$ . The ANOVA test was used to compare the variables that fit normal distribution, and the Kruskal-Wallis test was used to compare non-normal distribution variables.

**Results:** Mean serum uric acid level;  $4.56 (\pm 1.53)$  mg / dL in the major depression group,  $5.38 (\pm 1.42)$  mg / dL in the bipolar depression group and  $4.86 (\pm 1.26)$  mg / dL in the control group. In our study, there were no significant differences in serum uric acid levels between the patient and control groups ( $p = 0.075$ ). However, serum uric acid levels in the bipolar depression group are higher than the major depression and healthy control groups.

**Conclusions:** Uric acid levels were similar in the major depression and healthy control group and higher in the bipolar depression group. There are studies in the literature that support the change of uric acid levels in depressive patients. In these studies, the dysfunction of the purinergic system accompanying the psychiatric diseases is accused. It is also known that uric acid is an acute phase reactant that increases in response to inflammation in the body. A possible indicator of the inflammatory process, which is also implicated in bipolar and unipolar depression, may be elevation in serum uric acid levels. For this reason, we believe

### KEYWORDS

Bipolar disorder; major depressive disorder; uric acid; purinergic dysfunction; Inflammation

that the investigation of uric acid metabolism in patients with major depression and bipolar disorder in larger sample groups may contribute to the understanding of the disease and perhaps open new horizons for treatment.

[Abstract:0177][Schizophrenia and other psychotic disorders]

## Altered serum levels of high sensitivity C-reactive protein in first-episode drug-naïve and chronic medicated schizophrenia

Abdullah Bolu<sup>a</sup>, Mehmet Sinan Aydın<sup>a</sup>, Abdullah Akgün<sup>a</sup>, Ali Coşkun<sup>b</sup>, Cemil Çelik<sup>a</sup>, Özcan Uzun<sup>a</sup> and Taner Öznur<sup>a</sup>

<sup>a</sup>Gülhane Medical School; Dept. of Psychiatry. Ankara/Turkey; <sup>b</sup>Gülhane Medical School; Dept. of Pathology. Ankara/Turkey

E-mail address: [abdullah\\_bolu@yahoo.com](mailto:abdullah_bolu@yahoo.com)

### ABSTRACT

**Objective:** Schizophrenia causes significant loss of function and its aetiology still remains unclear. One of the most important hypotheses for explaining pathogenesis is related to immune dysfunction. People with high pro-inflammatory biomarkers in plasma and in serum have a higher risk of developing schizophrenia. Some studies showed higher high-sensitivity C-reactive protein (hsCRP) levels in patients with schizophrenia compared to the control group. However, there are not enough studies comparing the first episode drug-naïve psychotic disorder patients with chronic schizophrenia patients.

**Methods:** The study was conducted with 39 first-episode drug-naïve psychotic disorder patients and 52 schizophrenia patients. There was no statistically significant difference between the groups in terms of age, marital status, education, and gender.

**Results:** The mean HsCRP levels of first-episode psychotic disorder patients and the mean HsCRP levels of schizophrenia were compared and there was no statistically significant difference between the groups ( $t=0.771$ ;  $p=0.443$ ). There was a positive correlation between SAPS levels of first-episode psychotic disorder patients and hsCRP ( $r=0.424$ ;  $p=0.035$ ).

**Conclusions:** The most important finding in our study was that there was a positive correlation between PANS scores and hsCRP in patients with first episode drug-free psychotic disorder. Past studies showed that the level of hsCRP in patients with schizophrenia was higher than the control group and this elevated level of hsCRP decreased with treatment. While hsCRP was associated with PANSS scores in our study, some of the previous studies report the opposite of our findings. These findings are preliminary results of our study and the final results will be evaluated when the study is completed.

### KEYWORDS

Schizophrenia; hsCRP; aetiology; inflammation; biomarker

[Abstract:0192][OCD]

## 8-F2-isoprostane, Thioredoxin and Thioredoxin Reductase Levels in Children with Obsessive-Compulsive Disorder

Ayhan Bilgiç<sup>a</sup>, Rukiye Çolak Sivri<sup>b</sup> and İbrahim Kılınç<sup>c</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Meram School of Medicine, Necmettin Erbakan University, Konya, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Ankara Education and Research Hospital, Ankara, Turkey; <sup>c</sup>Department of Biochemistry, Meram School of Medicine, Necmettin Erbakan University, Konya, Turkey

E-mail address: [drrokuycolaksivri@gmail.com](mailto:drrokuycolaksivri@gmail.com)

### ABSTRACT

**Objective:** Accumulating data show that oxidative stress may have a crucial role in obsessive-compulsive disorder (OCD). This study aimed to explore the potential role of 8-F2-isoprostane, thioredoxin (Trx), and thioredoxin reductase (TrxR) in children with OCD.

**Methods:** Thirty-three medication-free children with OCD and 35 controls were included in the study. The severity of OCD was evaluated with the Children's Yale Brown Obsessive-Compulsive Scale. The severity of anxiety was detected by the Screen for Child Anxiety-Related Emotional Disorders. Plasma levels of 8-F2-isoprostane, Trx, and TrxR were assessed using ELISA kits.

**Results:** Plasma 8-F2-isoprostane, Trx, and TrxR levels did not demonstrate any significant differences between patients and controls. No significant correlations between plasma levels of these antioxidants and severity of OCD were found.

### KEYWORDS

Obsessive-compulsive disorder; children; 8-F2-isoprostane; thioredoxin; thioredoxin reductase

**Conclusions:** Results of this study did not suggest the involvement of oxidative stress in the aetiopathogenesis of OCD in children.

[Abstract:0200][Anxiety disorders]

## Comparison of side effects of different doses of gabapentin in healthy volunteers

Ahmet İnal

Erciyes University School of Medicine, Department of Pharmacology, Hakan Çetinsaya Good Clinical Practice and Research Center, Kayseri, Turkey

E-mail address: [drahmetinal@hotmail.com](mailto:drahmetinal@hotmail.com)

### ABSTRACT

**Objective:** Gabapentin is indicated for the treatment of peripheral neuropathic pain such as painful diabetic neuropathy, post-herpetic neuralgia treatment of partial seizures with and without secondary generalization and anxiety disorders in adults. The objective of the present trials is to examine the safety of both preparations (including 400 mg and 800 mg gabapentin) on the basis of safety clinical examinations (at the beginning and at the end of the trial) and registration of adverse events and/or adverse drug reactions in healthy volunteers.

**Methods:** Four (two trials of 400 mg gabapentin and two trials of 800 mg gabapentin) studies were conducted as a single-centre, open, randomized, single-dose, two-period crossover bioequivalence trials. This trial is conducted with the aim to examine whether differences concerning rate and extent of absorption exist between the test preparation and the reference product. A wash-out period of at least 1 week was observed between two consecutive treatments. A total number of 96 healthy male volunteers, aged 18–54 years, normal weight according to the BMI (18.5–30 kg/m<sup>2</sup>) completed the four trials (each trial consisted of 24 volunteers). A wash-out period of 7–14 days was planned between the two periods. Each of the volunteers was randomly assigned to one of 2 possible administration sequences. Each volunteer received in random order one single oral dose of 400 mg and 800 mg gabapentin (either 1 capsule of the test preparation or 1 capsule of the reference drug) on two occasions. All volunteers were subjected to a pre- and post-study safety examination (including a laboratory examination). The study subjects were planned as homogeneous as possible; although interaction between galenic formulations and gender of the subject is unlikely, the study subjects were recruited from male subjects only. The dosage of the test and the reference products (400 mg and 800 mg of gabapentin) was chosen as a normal dosage in adults.

**Results:** The adverse events most commonly associated with withdrawal were somnolence (8.3%), dizziness (2%), fatigue (2%), headache (2%) and no nausea, euphoria, and weakness in treatment by 400 mg gabapentin. Other two studies of 800 mg gabapentin adverse events were somnolence (16.6%), dizziness (33.3%), fatigue (2%), headache (10.4%), nausea (4%), euphoria (6.2%), and weakness (2%). These adverse events were probably related to gabapentin. The three most common adverse events were dizziness, somnolence, and headache. Volunteers receiving gabapentin 800 mg had a higher incidence of somnolence (16.6%), headache (10.4%), than those receiving gabapentin 400 mg (18.3%) ( $P < 0.005$ ). Compared with volunteers those receiving gabapentin 800 mg reported a significantly greater frequency of dizziness (33.3%) than those receiving gabapentin 400 mg (2%) ( $p < 0.005$ ).

**Conclusions:** This study observed the incidence of neuropsychiatric adverse events associated with gabapentin in healthy volunteers. Even though it is a single dose, some adverse effects were seen at higher rates in healthy volunteers than in patients. This can be caused by the underlying pathology or disease.

### KEYWORDS

Gabapentin; adverse effects; bioavailability; therapeutic equivalency; healthy volunteers

[Abstract:0203][OCD]

## Tobacco Smoking in Obsessive-Compulsive Disorder

Uğur Eray<sup>a</sup>, Çağdaş Öykü Memiş<sup>a</sup>, Bilge Doğan<sup>a</sup>, Murat Acat<sup>b</sup> and Levent Sevinçok<sup>a</sup>

<sup>a</sup>Anadn Menderes University School of Medicine, Department of Psychiatry, Aydın, Turkey; <sup>b</sup>Karabük University School of Medicine, Department of Pulmonary Diseases, Karabük, Turkey

E-mail address: [drugureray@gmail.com](mailto:drugureray@gmail.com)

**ABSTRACT**

**Objective:** Due to the heterogeneous nature of obsessive-compulsive disorder (OCD), it is possible that patients with distinct symptom clusters could have some differences in terms of tobacco smoking behaviour. The aim of the study was to determine the differences in lifetime smoker and non-smoker OCD patients.

**Methods:** Diagnosis of OCD was established using the Structured Clinical Interview for DSM-IV (SCID-I); 38 lifetime smoker, 53 non-smoker OCD patients were included in the study. Sociodemographic Data Form, Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI) were all administered. Chi-square and Mann–Whitney U test were performed to compare the groups.

**Results:** There were no differences in total and subscale scores of Y-BOCS total and subscale scores between the two groups. OCD patients with lifetime smoking were significantly more likely to attempt suicide ( $p=0.011$ ), and had a longer duration of illness ( $p<0.0001$ ) than those without smoking. The rate of ritualistic ( $p=0.043$ ) and counting compulsions ( $p=0.028$ ) were significantly higher in smoker than in non-smoker OCD patients.

**Conclusions:** Duration of illness, ritualistic, counting obsessions, and suicidal behaviour were related to smoking behaviour in OCD patients. In order to a better understand the relationship between smoking and OCD, future research studies are required.

**KEYWORDS**

OCD; tobacco smoking; compulsion; suicide; duration of illness

[Abstract:0204][Other]

## The relationship between physical restraint and diagnosis and use of medication in a child and adolescent psychiatry inpatient clinic of Manisa Mental Health Hospital

Arif Önder<sup>a</sup>, Aslı Sürer Adanır<sup>b</sup>, Canem Kavurma<sup>a</sup>, Öznur Bilaç<sup>a</sup> and Yakup Doğan<sup>a</sup>

<sup>a</sup>Manisa Mental Health Hospital, Department of Child and Adolescent Psychiatry, Manisa, Turkey; <sup>b</sup>Akdeniz University School of Medicine, Department of Child and Adolescent Psychiatry, Antalya, Turkey

E-mail address: [arifonder86@gmail.com](mailto:arifonder86@gmail.com)

**ABSTRACT**

**Objective:** The physical restraint (mechanical restraint), is usually made by connecting feet and wrists with leather belts to the bed which is fixed to the floor. Two additional leather straps are placed on the patient's legs and body. In our country, the number of inpatient paediatric psychiatry clinics is very limited. As a result, the current literature about the diagnosis and treatment preferences of children and adolescents who are followed-up in the inpatients clinics is very scarce. The aim of this study is to evaluate the characteristics of the patients who have been connected to the bed for the physical restraint and the effect of the physical restraint on the treatment in our inpatient unit.

**Methods:** Medical records of 200 hospitalized and treated patients in 2016 in Manisa Mental Health Hospital have been retrospectively reviewed. Patients who were restrained at least once during the hospitalization period were compared with patients who were not, in terms of diagnosis, psychopharmacological drug use, presence of comorbidity, duration of hospitalization, and the way of discharge.

**Results:** When we compared the groups that were restrained and not restrained, it was found that much more drugs were used in the restrained group. The use of antipsychotic and anxiolytic (lorazepam, alprazolam, diazepam, etc.) drugs was found to be significantly higher in the restrained group ( $p<0.05$ ). The use of haloperidol-biperidine injection was significantly higher in the restrained group ( $p<0.05$ ). The rate of multiple psychiatric diagnoses was significantly higher in the patients who had been restrained ( $p<0.05$ ). Major depression, conduct disorder, and bipolar disorder were found to be more frequent in the restrained group ( $p<0.05$ ). Self-injurious behaviours were also significantly higher in this group ( $p<0.05$ ). The hospitalization period was similar in both groups, but those who were discharged with the request of their family or caregivers before the end of treatment was more frequent in the restrained group ( $p<0.05$ ). Clinical global improvement scores were lower in the restrained group ( $p<0.05$ ). When the causes of physical restraint were examined, it was determined that the most frequent cause was the attempt of harming the other patients in the unit and the second one was self-harm attempts. Other causes were identified as disrupting the treatment environment, inflicting damage to property, threatening violence, physical attacks on the treatment team, and attempting to escape from the service.

**Conclusions:** Physical restraint practice causes psychological distress both to the patient and to the treatment team. It also results in the lack of patient's confidence to the treatment. In our study, it was also found that the reliability of the treatment was decreased and the clinical

**KEYWORDS**

Physical restraint; child and adolescent psychiatry; hospitalization; inpatients



global recovery improvement scores were lower in the families whose children were physically restrained. In conclusion, prior to the application of physical restraint, the other methods must be tried and physical restraint must be the last resort. In this presentation, the reasons for the physical restraint and the study results will be discussed in the context of current literature.

[Abstract:0206][OCD]

## The Relationship between Eating Attitudes and Distress Tolerance in Obsessive-Compulsive Disorder

Rukiye Ay

Malatya Training and Research Hospital

E-mail address: [rukiyeay@gmail.com](mailto:rukiyeay@gmail.com)

### ABSTRACT

**Objective:** The main objective of this study was to examine the eating attitudes of obsessive-compulsive disorder (OCD) patients, while the secondary objective was to examine the relationship between eating attitudes and distress tolerance.

**Methods:** The study included 60 OCD patients and 60 healthy individuals as controls. The participants were administered the Padua Inventory (PE), Eating Attitudes Test (EAT-26), Distress Tolerance Scale (DTS), and Beck Depression Inventory (BDI).

**Results:** In comparison to the control group, the EAT-26 and BDI scores of the patient group were significantly higher, while the DTS total score was significantly lower ( $p = 0.001$ ,  $p = 0.001$ ,  $p = 0.001$ , respectively). The patients were divided into two groups based on the EAT-26 cut-off score. In the group with  $EAT-26 \geq 30$ , the total PI score ( $p = 0.035$ ), rumination ( $p = 0.010$ ), impulses ( $p = 0.001$ ), and sub-scale scores and BDI scores ( $p = 0.038$ ) were significantly higher, while the DTS total score ( $p = 0.005$ ), tolerance ( $p = 0.000$ ), regulation ( $p = 0.013$ ), and self-efficacy ( $p = 0.009$ ) sub-scale scores were significantly lower.

**Conclusions:** We found that the eating habits of the OCD patients were more irregular than those of the healthy individuals. Furthermore, the distress tolerance of the patients with irregular eating attitudes was significantly lower.

### KEYWORDS

Distress tolerance; eating attitude; obsessive-compulsive disorder; obsessions; compulsions

[Abstract:0217][Autism]

## Autism spectrum disorders comorbidities in children with phenylketonuria: a retrospective cohort study

Çağatay Uğur<sup>a</sup>, Betül Gül Alıç<sup>a</sup>, Mehmet Gündüz<sup>b</sup> and Özlem Ünal<sup>b</sup>

<sup>a</sup>Health Sciences University, Ankara Child Health and Diseases Hematology Oncology Research and Training Hospital, Child and Adolescent Psychiatry Department, Ankara, Turkey; <sup>b</sup>Health Sciences University, Ankara Child Health and Diseases Hematology Oncology Research and Training Hospital, Department of Child Metabolism and Nutrition, Ankara, Turkey

E-mail address: [drcagatay85@gmail.com](mailto:drcagatay85@gmail.com)

### ABSTRACT

**Objective:** Phenylketonuria (PKU) is the prototypical human Mendelian disease (OMIM 261600) resulting from impaired activity of phenylalanine hydroxylase (PAH), the enzyme necessary to convert phenylalanine (PHE) to tyrosine. This deficiency causes hyperphenylalaninemia (HPA), which is especially harmful for the brain during the first years of life, resulting in variable neurological and mental impairments [2–4]. Although the PKU is seen every 10,000 to 30,000 newborns in America and many European countries, the frequency in our country is 1/6094. PKU is the most common genetic metabolic disease with a well-defined association with autism spectrum disorders (ASD) in single case reports and case series, although the exact prevalence rate of autism in PKU is unknown. In this study, we aimed to examine the frequency of ASD in patients with PKU.

**Methods:** We reviewed retrospectively the file summaries and medical reports of 397 patients with PKU diagnosis between the ages of 0 and 18 years registered between 2014 and 2018 in our clinic. Psychiatric interviews based on DSM-5 for ASD were evaluated during the health report procedures of patients with PKU, and each case was filled with an autism behaviour checklist.

### KEYWORDS

Phenylketonuria; autism spectrum disorder; prevalence; comorbidity; intellectual disability



**Results:** The average age of the group was found to be  $47.8 \pm 43$  months. Of the cases, 201 (50.6%) were female and 196 (49.4%) were male. ASD was detected 2% ( $n = 8$ ) of the PKU cases and 8.6% ( $n = 34$ ) of intellectual disabilities were detected.

**Conclusions:** In our study, the prevalence of ASD was found to be quite high in patients with PKU. Our work was found to be consistent with the results of the few studies conducted in this area. In a study of adult patients with PKU, ASD was found to be significantly higher than control group. Reiss et al. have suggested that up to 20% of the ASD frequency is seen in PKU cases. In different studies, autism was associated only with uncontrolled and late diagnosed PKU cases. Several reports suggested that ASD might represent the end result of a dysfunction caused by a metabolic block in the brain. Among the potential pathophysiological mechanisms implicated in ASD is the excitation/inhibition (E/I) imbalance which might result from alterations in excitatory/inhibitory synapse development, synaptic transmission and plasticity, downstream signalling pathways, and intrinsic neuronal excitability. This cohort report is important because of its potential to give a new direction to studies that aim at the management of ASD, which has come to the occasion like this.

[Abstract:0221][ADHD]

## The relationship of suicide ideation with emotional regulation and executive functions in children with attention-deficit/hyperactivity disorder

Ömer Uçur and Özlem Özcan

Inonu University School of Medicine, Department of Child and Adolescent Psychiatry, Malatya, Turkey

E-mail address: [dr.omer.crs@gmail.com](mailto:dr.omer.crs@gmail.com)

### ABSTRACT

**Objective:** It has been reported that attention deficit, hyperactivity, and impulsivity in attention-deficit/hyperactivity disorder (ADHD) may lead to more frequent suicidal ideation and/or attempts. However, research on cases of ADHD with suicidal ideation and/or attempts is limited in children. We aimed to examine the relationship between the executive function deficits and emotional regulation difficulties of ADHD and suicidal ideation in children.

**Methods:** This study was performed between January and June of 2017 with patients between the ages of 8 and 12 years with diagnoses of ADHD presented to the outpatient clinics of the Child and Adolescent Psychiatry Department at the Turgut Özal Medical Center at Inonu University. All participants met DSM-5 diagnostic criteria for ADHD according to clinical psychiatric and psychometric examinations. The K-SADS-PL questionnaire was used to determine suicidal ideation. Parents were assessed using behavioural-rating inventory of executive function (BRIEF) scale and emotion regulation checklist (ERC), while children were evaluated using the children depression inventory (CDI) and screen for child anxiety and related emotional disorders (SCARED) scale. Thirty-eight cases (ADHD + SI) describing suicidal ideation and 41 cases (ADHD) with no suicidal ideation were included in the study. Thirty-three healthy individuals were selected for the control group at similar ages. IBM SPSS Statistics 22.0 was used for statistical analysis of the data.

**Results:** Significant differences were found between the ADHD + SI, ADHD and the control group in terms of maternal and paternal psychiatric disorder, maternal suicidal behaviour, paternal drug use, and home violence. According to the DSM-5 ADHD severity rating, moderate and severe ADHD scores were significantly higher in the ADHD + SI group. Additionally, comorbid depressive disorder and conduct disorder were significantly more frequent in the ADHD + SI group. Significantly higher scores were also obtained in the ADHD + SI group in the subscale inhibit, emotion control, monitor, behavioural regulation index, and total scores, and the ERC lability/negativity subscale scores. Finally, significantly higher scores were obtained in the CDI and SCARED general anxiety, separation anxiety, and total test scores in the ADHD + SI group.

**Conclusions:** Executive function deficits associated with ADHD and difficulties in regulating emotions may lead to suicidal ideation. It is possible for suicidal thinking to proceed to suicide attempts and/or completed suicide. Recognition and treatment of executive functioning problems and difficulties in emotional management in children with ADHD may prevent the development of possible suicidal behaviour. Our results suggest the need for further and larger scale research to be conducted to better understand the relationship between ADHD and suicidal ideation.

### KEYWORDS

Attention-deficit; hyperactivity; impulsivity; suicide ideation; emotion regulation; executive functioning

[Abstract:0239][Mood disorders]

## Night eating syndrome in patients with major depressive disorder

Hasret Karabulut Gül<sup>a</sup>, Demet Sağlam Aykut<sup>a</sup>, Ahmet Tiryaki<sup>b</sup> and Filiz Civil Arslan<sup>a</sup><sup>a</sup>Karadeniz Technical University School of Medicine, Department of Psychiatry, Trabzon, Turkey; <sup>b</sup>Istanbul Aydın University School of Medicine, Department of Psychiatry, Istanbul, TurkeyE-mail address: [drhasretkgul@hotmail.com](mailto:drhasretkgul@hotmail.com)

### ABSTRACT

**Objective:** In this study, it was aimed to examine Night Eating Syndrome (NES) prevalence among patients with Major Depressive Disorder (MDD) and healthy controls. Also it was aimed to determine whether there is a relationship between the severity of depression and the presence of NES in patients with MDD. Also it was aimed to determine whether there were differences in anxiety levels, sleep quality, eating attitude, and quality of life between comorbid NES diagnosed subjects with MDD and those who did not have comorbid NES.

**Methods:** From May 2016 to December 2016, 216 patients who presented to the psychiatry outpatient clinic of the Karadeniz Technical University Medical Faculty and accepted to participate in the study from the patients who were diagnosed with MDD according to the DSM-5 diagnostic criteria and who met inclusion criteria were taken into the study. A total of 216 participants who matched with these patients in terms of gender, age, and educational level were included in the study as the control group. Clinical interview was held with all participants included in the study. Socio-demographic Evaluation Form, Night Eating Questionnaire (NEQ), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Pittsburgh Sleep Quality Index (PSQI), Insomnia Severity Index (ISI), Quality of Life Enjoyment and Satisfaction Questionnaire-Short Form (Q-LES-Q-SF) and Eating Attitudes Test (EAT) were utilized for data collection.

**Results:** In our study, the percentage of those who diagnosed NES among the MDD diagnosed patients was 13.4%, whereas in the control group, this was 2.3%. In the comparison of MDD patients with NES and without NES, the proportion of smokers and suicide attempt narratives was higher in the group with NES. BDI score was significantly higher in the NES group. Furthermore, the proportion of those with severe depression in the NES group was higher than non-NES group. Similarly, BAI score was significantly higher in the NES group. Also the proportion of those with severe anxiety levels in the NES group was higher than non-NES group. Comparisons between NES and non-NES patients also revealed significant differences in PSQI subscale scores for subjective sleep quality, sleep latency, sleep duration, and sleep disturbance, daytime dysfunction, insomnia severity and quality of life. The percentage of patients with moderate and severe clinical insomnia was significantly higher in the NES group. Among the NES patients, the percentage of those with other eating disorders, especially those with Binge Eating Disorder (BED), was found significantly higher than the non-NES group. In our sample, the predictors of NES were BDI and the presence of any other eating disorders.

**Conclusions:** Based on the data of this study, it was found that NES is very common in patients with MDD. In patients with a diagnosis of MDD and especially with severe MDD, the presence of NES should be examined even if there are no complaints about night eating. In these patients, awareness of NES and taking into consideration during treatment planning provides opportunity to use appropriate pharmacological and psychotherapeutic treatment options. Recognizing NES and well-planned treatment may contribute to MDD prognosis and treatment. Also in the presence of any other eating disorders, NES should be examined absolutely.

### KEYWORDS

Depression; eating disorders; night eating syndrome; quality of life; sleep

[Abstract:0244][Stress and related situations]

## Can gestation be considered as a trauma in adolescent girls: post-traumatic stress disorder in teen pregnancy

Aslı Sürer Adanır<sup>a</sup>, Arif Önder<sup>b</sup>, Gül Alkan Bülbül<sup>c</sup>, Ömer Yolcu<sup>a</sup>, Aysel Uysal<sup>c</sup> and Esin Özatalay<sup>a</sup><sup>a</sup>Akdeniz University School of Medicine, Department of Child and Adolescent Psychiatry, Antalya, Turkey; <sup>b</sup>Manisa Psychiatry Hospital, Department of Child and Adolescent Psychiatry, Manisa, Turkey; <sup>c</sup>Antalya Training and Research Hospital, Department of Gynecology and Obstetrics, Antalya, TurkeyE-mail address: [omrylc@gmail.com](mailto:omrylc@gmail.com)

**ABSTRACT**

**Objective:** Adolescent pregnancy is a phenomenon seen in all societies, because of child marriages, adolescent sexuality, child sexual abuse, and so on. According to Turkish Statistical Institute 2013 data, the rate of adolescent fertility is 29.4 per thousand in Turkey. As pregnancy is a risky period even in young adults; teens are more vulnerable in case of psychiatric disorders, and many other medical and psychosocial problems. Especially if the psychiatric disorders during this period are not recognized and treated in a timely manner, they may result in significant impairment in general health and functionality in the postpartum period and may negatively affect mother–infant attachment and neonatal health. Unfortunately, there has been limited research on such a topic about public health. In this study, it was aimed to evaluate the post-traumatic stress disorder (PTSD) in this risky group.

**Methods:** All pregnant adolescents who had presented to clinics of obstetrics and gynaecology at Antalya Training and Research Hospital between September 2016 and September 2017 were asked to participate in the study. Adolescents with a chronic disease and mental developmental delay were excluded before. Two of them declined participation, and the study group consisted of 47. A total of 45 adolescents, age-matched with the patient group, without any medical illness and/or mental retardation, were randomly chosen from the schools of the hospital environment by pre-interview and they constituted the control group. Socio-demographic characteristics of the study participants, including age, education, and characteristics of the baby's father were recorded during the interview. PTSD was rated using the Child Post-Traumatic Stress Disorder-Reaction Index (CPTSD-RI). All children were interviewed by a child psychiatrist, and a total stress score was obtained. PTSD symptoms were also classified as "Mild," "Moderate," "Severe," or "Extremely Severe." In the study group, pregnancy, and in controls, the most important traumatic event (traffic accident, fire, earthquake etc.) reported by them during the interview were taken into account in the evaluations.

**Results:** About the study group, thirty-five (74.5%) adolescents defined themselves as "married." Five (10.6%) had a previous pregnancy. Twenty-five (53.2%) of pregnancies were not planned. Years of education and parents' education were significantly lower, whereas teen pregnancy family history was significantly higher in the study group. When 2 groups were compared in terms of PTSD scores, it was significantly high in pregnant. Nearly in two-thirds of the study group, various severities of PTSD were observed. Twelve (25.5%) of these adolescents manifested mild and 42.6% clinically significant ( $n = 20$ ; moderate 21.3% and severe & extremely severe 21.3%) degrees of PTSD symptoms. However, clinically significant PTSD manifestations were 23.3% in healthy controls ( $n = 10$ ).

**Conclusions:** In this study, PTSD was more frequently seen in adolescents with pregnancy, compared to their healthy age-matched peers. Although PTSD in adolescent pregnancy was reported to be high in the limited research in this area, to date, to our knowledge, there is no study evaluating gestation as a trauma in teens. Educating the adolescents about birth control methods and preventing marriages under the age of 18 will be protective from this point of view.

**KEYWORDS**

Adolescent; child post-traumatic stress disorder-reaction index; posttraumatic stress disorder; pregnancy

[Abstract:0246][Autism]

## Evaluation of plasma GRP78 levels as an indicator of endoplasmic reticulum stress in the patients with autism spectrum disorder

Erman Esnafoglu<sup>a</sup> and Selma Cirrik<sup>b</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, School of Medicine, Ordu University, Ordu, Turkey; <sup>b</sup>Department of Physiology, School of Medicine, Ordu University, Ordu, Turkey

E-mail address: [ermanesnafoglu@yahoo.com.tr](mailto:ermanesnafoglu@yahoo.com.tr)

**ABSTRACT**

**Objective:** Endoplasmic reticulum (ER) stress refers to physiological or pathological states which result in the accumulation of misfolded or unfolded proteins in the ER lumen. ER stress-induced tissue injury has been implicated in a variety of diseases including neurodegenerative disorders such as Alzheimer's, Parkinson's, and Huntington's diseases. Recent evidence from both experimental and postmortem studies has shown that ER stress is one of the processes involved in the pathogenesis of autism spectrum disorder (ASD). However, no circulating markers of ER stress have been reported so far in these patients. Glucose-regulated protein 78 (GRP78), an ER-resident chaperone, regulates the ER stress response and is accepted as the main indicator for ER stress both in tissue and in blood. In the present study, the circulating GRP78 levels were examined in ASD patients as a potential marker for ER stress.

**KEYWORDS**

Autism; autism spectrum disorders; endoplasmic reticulum stress; GRP78; pathogenesis

**Methods:** Plasma samples from healthy control subjects ( $n = 29$ ) and ASD patients ( $n = 33$ ) were used to evaluate circulating GRP78 levels. Plasma GRP78 concentrations were measured by ELISA. Data are presented as mean  $\pm$  standard deviation.

**Results:** Plasma GRP78 concentration was  $11.61 \pm 4.03$  ng/ml in the healthy control group and did not change significantly in the ASD group ( $11.56 \pm 5.73$  ng/ml) ( $p = 0.9688$ ).

**Conclusions:** Although ER stress has been implicated in ASD, our results showed that plasma levels of GRP78 did not change in ASD patients. It is suggested that GRP78 is not an appropriate circulating marker to evaluate ER stress in ASD patients.

[Abstract:0248][ADHD]

## Clinical presentation, psychiatric comorbidity, and treatment characteristics of adults with attention-deficit/hyperactivity disorder

Esin Erdogan and Dursun Hakan Delibas

University of Health Sciences, Izmir Bozyaka Research and Training Hospital, Department of Psychiatry, Izmir

E-mail address: [dresinerdogan@gmail.com](mailto:dresinerdogan@gmail.com)

### ABSTRACT

**Objective:** The aim of this study was to evaluate the clinical features, comorbidity, and treatment characteristics of adults with attention-deficit/hyperactivity disorder (ADHD) in psychiatry outpatient clinic.

**Methods:** Adults diagnosed with ADHD between 2015 and 2017 were included in the study. Clinical interview based on DSM-IV was performed. Socio-demographic data form, Wender Utah Rating Scale, Adult ADD/ADHD DSM-IV Based Diagnostic Screening and Rating Scale, Adult ADHD Self-Report Scale (ASRS) and Personal and Social Performance Scale (PSP) were filled out. The detailed laboratory parameters were evaluated during the study.

**Results:** Ninety-one cases were included in the study. The mean age of the patients was  $28.5 \pm 10.4$ . A total of 50 patients were female (54.9%) and mean duration of education was  $13.05 \pm 2.19$ . Mean duration of ADHD treatment was  $22.8 \pm 24.46$  months. ADHD was diagnosed in 7.7% of the cases before 12 years, 14.3% between 12 and 18 years and 71% after 18 years of age. When the ADHD subtypes were evaluated, 51.6% ( $n = 47$ ) showed combined type, 42.9% ( $n = 39$ ) showed attention deficit, and 5.5% ( $n = 5$ ) showed hyperactive/impulsive subtype. The rate of family history of ADHD was 50.5% ( $n = 46$ ). The compliance rate of treatment in the first year was 85.7%; 20.9% ( $n = 19$ ) of cases attempted suicide. The rate of medical illness was 28.6% ( $n = 26$ ); 17.6% ( $n = 16$ ) of the cases had drug side effects. The most frequent side effects were insomnia with 4.4% and anorexia with 2.2%. D vitamin level was low (mean =  $19.42 \pm 9.25$ ). In 44.8% of cases, the level of ferritin was low (mean =  $39.55 \pm 41.2$ ). Hyperlipidaemia was present in 32.6% of the sample. The first mean ASRS score was  $49.08 \pm 9.53$ , while the last mean ASRS score was  $21.32 \pm 8.38$ . The first mean PSP score was  $60.6 \pm 9.59$ , the last mean PSP score was  $83.53 \pm 6.92$ . 81.3% ( $n = 74$ ) of the cases had comorbid diagnosis. Depression was the most common comorbidity with rate of 33% ( $n = 30$ ). The most commonly used psychostimulant was methylphenidate, with an average dose of  $26.18 \pm 6.03$  mg / day; 15.4% of the cases were using dual psychostimulants. When treatment response were evaluated, there was a significant difference between ADHD subtypes ( $p = 0.045$ ). When the group with psychiatric comorbidity was compared with those who did not have comorbidity, severity of illness was higher and level of functioning was lower ( $p = 0.041$ ).

**Conclusions:** ADHD is a neurodevelopmental disorder that can persist throughout life. ADHD is a risk factor for other psychiatric comorbidities if it continues in adulthood. In our study, the treatment response of the combined subtype emerged later, indicating that the use of psychotropic drug was higher in this group. ADHD comorbidity alters the appearance of other clinical conditions, increasing the negative effects of both diseases on severity and functioning. Systematic evaluation of cases and comorbidities in clinical practice will help to understand and manage the prognostic determinants of adult ADHD.

### KEYWORDS

Adult attention-deficit hyperactivity disorder; comorbidity; methylphenidate; psychiatry outpatient clinic; treatment

[Abstract:0257][Schizophrenia and other psychotic disorders]

## Is metabolic profile of the patients with first episode mania and psychotic disorder different?

Hazan Tomar Bozkurt, Rukiye Tekdemir, Vefa Erbasan, Okan İmre, Memduha Aydın and Kürşat Altınbaş

Selcuk University School of Medicine, Department of Psychiatry, Konya, Turkey

E-mail address: [hazan.tomar@hotmail.com](mailto:hazan.tomar@hotmail.com)

#### ABSTRACT

**Objective:** Several studies indicated that patients with chronic mood and psychotic disorders have higher blood fasting glucose and lipid levels than general event at the first episode of the illness. Metabolic disturbances were reported to be related with the disease severity and chronicity. From here, we aimed to compare fasting glucose and lipid levels of the patients with first episode psychosis and first episode bipolar mania.

**Methods:** Forty-four inpatients with first-episode psychosis and 44 inpatients with first-episode bipolar disorder mania recruited for the study. Socio-demographic variables, blood fasting lipid and glucose levels were compared.

**Results:** Groups did not differ in terms of age ( $p = 0.06$ ;  $z = -1.6$ ), gender ( $p = 0.2$ ;  $\chi^2 = 1.6$ ) and duration of hospitalization ( $p = 0.87$ ;  $t = 0.17$ ). There were no statistically significant differences in plasma levels of fasting glucose ( $p = 0.07$ ;  $t = 1.83$ ), high-density lipoprotein ( $p = 0.51$ ;  $z = -0.66$ ) and low-density lipoprotein ( $p = 0.06$ ;  $t = 1.87$ ) cholesterol between patient groups. Mean triglyceride and total cholesterol levels were significantly higher in patients with first episode psychosis than first episode bipolar mania, respectively ( $p = 0.003$ ,  $z = -2.95$ ;  $p = 0.02$ ,  $t = 2.39$ ).

**Conclusions:** Higher triglyceride and total cholesterol levels in the first episode psychosis than first episode bipolar are consistent with the view that metabolic syndrome is more likely in psychotic patients comparing with the chronic mood disorders. However, we could not find a difference in fasting glucose, HDL, and LDL levels. This could be related with the lack of control group, relatively small size and evaluation of only the first-episode patients. Further longitudinal follow-up studies are required for better understanding of this condition.

#### KEYWORDS

First-episode psychosis; glucose level; lipid level; mania; metabolic profile

[Abstract:0261][Autism]

## Motor skills and their correlations with social and cognitive features in children with autism spectrum disorder

Başak Karabucak<sup>a</sup>, Halime Tuna Çak Esen<sup>b</sup>, Sadriye Ebru Çengel Kültür<sup>b</sup>, Remzi Karaokur<sup>c</sup>, Songül Atasavun Uysal<sup>d</sup>, Nurhan Erbil<sup>e</sup> and Meltem Çiğdem Kirazlı<sup>f</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Karaman State Hospital, Karaman, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Hacettepe University, Ankara, Turkey; <sup>c</sup>Department of Child and Adolescent Psychiatry, Sincan State Hospital, Ankara, Turkey;

<sup>d</sup>Department of Physical Therapy and Rehabilitation, Institute of Health Sciences, Hacettepe University, Ankara, Turkey; <sup>e</sup>Department of Biophysics, Hacettepe University, Ankara, Turkey; <sup>f</sup>Department of Speech and Language Therapy, Hacettepe University, Ankara, Turkey

E-mail address: [karabucakbasak@gmail.com](mailto:karabucakbasak@gmail.com)

#### ABSTRACT

**Objective:** The aim of this study was to compare children with Autism Spectrum Disorder (ASD) with age- and gender-matched healthy controls in terms of motor skills, social skills, and cognitive features.

**Methods:** Fifteen children with an ASD diagnosis, who had a Perceptual Reasoning Index (PRI) score of 70 or more on Wechsler Intelligence Scales for Children (WISC-IV), were enrolled in the study group and 15 healthy children matched for PRI score, age and gender were in the control group. Social skills were evaluated with Social Communication Questionnaire (SCQ), and Social Responsiveness Scale (SRS). Edinburgh Handedness Inventory and Bruininks-Oseretsky Test of Motor Proficiency (BOT-2) were used for motor evaluation.

**Results:** The ASD group had lower scores on WISC-IV subtests as: picture concepts, coding, vocabulary, letter-number sequencing, comprehension, symbol search, all subscales and full scale IQ although their PRI scores were above 70 and the group consisted of high-functioning individuals. The ASD group had significantly lower scores in balance, speed of movement, agility, upper limb coordination, strength subtests and total motor skills scores on BOT-2. WISC-IV working memory subscale score was significantly correlated with fine motor skills ( $p < 0.01$ ). The ASD group had higher scores on SCQ and SRS as expected; SCQ score was inversely correlated with balance ( $p < 0.05$ ), running speed and agility ( $p < 0.01$ ), upper limb coordination ( $p < 0.01$ ), strength ( $p < 0.05$ ) subtests, also with gross motor subscale ( $p < 0.01$ ), both gross and fine motor scale ( $p < 0.01$ ) and total score of BOT-2 ( $p < 0.05$ ); SRS total score was inversely correlated with balance ( $p < 0.01$ ), running speed and agility ( $p < 0.01$ ), upper

#### KEYWORDS

Autism spectrum disorder; cognitive features; motor skills; social skills; WISC-IV



limb coordination ( $p < 0.01$ ), strength ( $p < 0.01$ ) subtests, also with gross motor subscale ( $p < 0.01$ ), both gross and fine motor scale ( $p < 0.01$ ) and total score of BOT-2 ( $p < 0.01$ ). **Conclusions:** The ASD group exhibited poorer motor skills than the control group. Social skills were concluded to be linear with motor skills. This study is one of the earlier studies in autism research to examine the relationship between motor skills and cognitive and social features. To understand the nature of motor symptoms and their social and cognitive correlates in ASD; more studies including motor tasks and correlation analysis are needed. Larger sample use, narrow age range, well-stated comorbidity, and medication use are important to find more specific and generalizable results in this field.

[Abstract:0264][Psychopharmacology]

## Systolic and diastolic myocardial performance in patients using methylphenidate with attention-deficit/ hyperactivity disorder diagnosis: a tissue Doppler imaging study

Tayfun Kara<sup>a</sup>, Ajda Mutlu Mihçioğlu<sup>b</sup>, Semra Yılmaz<sup>a</sup> and İsmail Akaltun<sup>c</sup>

<sup>a</sup>University of Health Sciences, Bakirkoy Dr. Sadi Konuk Training and Research Hospital, Department of Child and Adolescent Psychiatry, Istanbul, Turkey; <sup>b</sup>Health Sciences University, Bakirkoy Dr. Sadi Konuk Training and Research Hospital, Department of Pediatric Cardiology, Istanbul, Turkey; <sup>c</sup>Gaziantep Dr. Ersin Arslan Training and Research Hospital, Department of Child and Adolescent Psychiatry Gaziantep, Turkey

E-mail address: [tayfunkara@hotmail.com](mailto:tayfunkara@hotmail.com)

### ABSTRACT

**Objective:** Many children with Attention-Deficit/ Hyperactivity Disorder (ADHD) are treated with psychotropic medications. It is known that psychostimulants have cardiovascular effects. The effects on heart rate and blood pressure and tachyarrhythmia are well defined. However, acute cardiomyopathy and pericarditis due to the use of methylphenidate (MPH) have rarely been reported. The purpose of this study is to show the relationship between the use of MPH and cardiac functions.

**Methods:** The study was conducted with 102 participants. A total of 51 patients were included in the study group, aged 6–18 years, using MPH derivatives (immediate-release-IR, extended release-ER) for at least 6 months. Twenty-two of the participants were using MPH with IR/ER: 50/50 and 29 with IR/ER: 22/78. All participants were administered the Barkley Stimulant Side Effects Rating Scale (SERS) by the researchers for the evaluation of drug side effects. Participants were also assessed using the Tissue Doppler Echocardiography (also called Tissue Doppler Imaging-TDI), a useful echocardiographic technique for assessing global and regional myocardial systolic and diastolic function. The obtained data were compared statistically.

**Results:** There was a statistically significant difference in the distribution of iso-volumetric contraction time (IVCT) between the case and control groups ( $p: 0.049$ ). IVCT values of all patients using MPH were found to be statistically significantly shorter than those who did not use it. It was observed that the IVCT changed depending on the type of MPH used. Participants using IR / ER: 22/78 had IVCT:  $54.4 \pm 8.9$  and IRC / ER: 50/50 participants had IVCT:  $48.9 \pm 10.1$ . In addition, there was a statistically significant positive correlation between the IVCT scores and the symptoms of Stares a lot or daydreams ( $r = 0.398$ ,  $p = 0.004$ ) and uninterested in others ( $r = 0.321$ ,  $p = 0.021$ ) (Spearman's rho  $p < 0.05$ ).

**Conclusions:** MPH is the most commonly used psychostimulant drug in the treatment of ADHD in children and adolescents. It is a potent central nervous system stimulant that exerts its effects by increasing pre-synaptic levels of dopamine and norepinephrine. Previous studies have shown that extended release MPH increases heart rate, systolic blood pressure, diastolic blood pressure, and corrected QT (QTc) interval. Methamphetamine has been found to increase cardiomyopathy probability by 3.7 fold. The exact mechanism through which methamphetamine or methylphenidate exerts myocardial pathology remains unclear. But it is thought to be due to mainly direct catecholamine effects on cardiac myocytes. Increased catecholamine levels are thought to be due to myocardial overexpression of adrenoceptors, which may lead to pathological changes in cellular hypertrophy, apoptosis, and contractile function. In our study, MPH users were also found to have shorter IVCT. As the IR release rate increased, this shortening in IVCT was found to be increased. We think that monitoring of cardiac pathology of MPH users is important. We consider that there is a need for more comprehensive and longitudinal studies on the potential cardiovascular effects of MPH.

### KEYWORDS

Methylphenidate;  
prescription stimulants;  
attention-deficit/  
hyperactivity disorder;  
Doppler echocardiography;  
tissue Doppler imaging



[Abstract:0266][Mood disorders]

## The levels of BDNF and CREB patients with major depressive disorder

Abdullah Atli<sup>a</sup>, Zübeyir Can<sup>b</sup>, Emine Füsün Akyüz Çim<sup>c</sup> and Aslıhan Okan İbiloğlu<sup>a</sup>

<sup>a</sup>Dicle University School of Medicine, Department of Psychiatry, Diyarbakir, Turkey; <sup>b</sup>Batman Regional State Hospital, Batman, Turkey;

<sup>c</sup>Yüzüncü Yıl University School of Medicine, Department of Psychiatry, Van, Turkey

E-mail address: [abdullahatli@yandex.com](mailto:abdullahatli@yandex.com)

### ABSTRACT

**Objective:** The aim of this work is to determine and compare the BDNF, CREB, and serum levels of patients with major depressive disorder (MDD) and healthy controls. These two groups are comprised of patients who are known to suffer from biologically induced depression and healthy controls.

**Methods:** This was performed on 45 patients in acute episode of the MDD and 43 healthy volunteers, between the ages of 18 and 65 according to DSM-IV criteria diagnosed with MDD. Serum BDNF and CREB levels were measured using prepared ELISA kits. Consents and socio-demographic information of all participants were obtained. Patients were evaluated with Hamilton Depression Rating Scale-17 (HDRS), Hamilton Anxiety Rating Scale (HARS), Clinical Global Impression (CGI). For statistical analyses, student t-test, chi-square test, Pearson's correlation analysis, and one-way analysis of variance (ANOVA) were performed.

**Results:** In this study, in patients and in the control group, there were no significant differences in terms of BDNF and CREB levels. We found that the BDNF and CREB levels had strong correlations with each other. We found that BDNF and CREB levels had no correlations with socio-demographic features, patients with clinical features, and scale scores. We also found that Hamilton Depression Scale scores were correlated with CGI scores and the number of episodes; BMI had a correlation with the patient's age and the age of onset of illness.

**Conclusions:** In sum, no relationships were found between the BDNF and CREB levels and major depressive disorder.

### KEYWORDS

Major depressive disorder; BDNF; CREB; biological marker; depressive episodes

[Abstract:0268][Autism]

## Evaluation of neutrophil/ lymphocyte ratio in children with autism and relationship between autism severities

Nilfer Şahin

Muğla Sıtkı Koçman University School of Medicine, Department of Child and Adolescent Psychiatry, Muğla, Turkey

E-mail address: [nilfersahin@hotmail.com](mailto:nilfersahin@hotmail.com)

### ABSTRACT

**Objective:** Autism Spectrum Disorders (ASD) is a heterogeneous group of neurodevelopmental disorders occurring with a prevalence ranging from 0.7% to 2.64% in early childhood. Although there is still a lack of full understanding of the etiology of ASD, various clues suggest possible association with altered immune responses and ASD. In this study, it was aimed to evaluate the neutrophil / lymphocyte ratio (NLR) in children with ASD.

**Methods:** This retrospective study included 66 children with drug-naïve ASD diagnosed by DSM-5 criteria and 44 age- and gender-matched healthy controls. NLR was measured according to the complete blood count. The severity of ASD was evaluated with the Childhood Autism Rating Scale (CARS) total score.

**Results:** NLR values of the autism group were  $1.19 \pm 0.69$  and those of the control group were  $1.56 \pm 0.72$ . The difference between the two groups was statistically significant ( $p = 0.008$ ). There was no correlation between CARS scores and NLR in the autism group ( $p > 0.05$ ).

**Conclusions:** To the best of our knowledge, this is the first study to evaluate the NLR ratio in children with ASD. This study has shown that children with autism have lower NLR ratio than healthy controls. However, there were no correlations between the NLR and autism severity. Decreased NLR levels may reflect altered immune response in autistic patients, and this immune response may play a role in the complex pathophysiology of ASD.

### KEYWORDS

Autism spectrum disorder; aetiology; inflammation; neutrophil; lymphocyte; neutrophil-lymphocyte ratio

[Abstract:0270][ADHD]

## Internet addiction among eighth-grade students: Çanakkale sample

Hülya Ertekin

Çanakkale 18 Mart University, School of Medicine, Çanakkale, Turkey

E-mail address: [hulyares@hotmail.com](mailto:hulyares@hotmail.com)

### ABSTRACT

**Objective:** The influential presence of internet has affected children and adolescents more than adults. The aim of this study was to define internet addiction prevalence and its relation with income level among the eighth-grader students in Çanakkale.

**Methods:** This was a cross-sectional, descriptive study. The study group was selected from the eighth-grader students. The Internet Addiction Scale was used for determining the internet addiction level.

**Results:** A total of 257 students were enrolled in the study, 47% ( $n = 100$ ) of the participants were girls, and 53% ( $n = 157$ ) of participants were boys. Mean score of test was  $26.5 \pm 17.0$  in girls and  $29.3 \pm 20.0$  in boys, and there was no statistically significant difference ( $p > 0.05$ ). Prevalence of internet addiction was 0.8% ( $n = 2$ ) and they were from the schools with children from high-income level families. Boys were more likely to have risks for internet addiction than girls but there was no statistically significant difference between boys and girls ( $p > 0.05$ ). Schools with children from high-income level families had significantly higher number of internet addict students than the low-income level schools ( $p = 0.018$ ).

**Conclusions:** The internet addiction among adolescent students from the eighth-grader students was rather low in this study. Male gender and high socio-economic level may be important determinants for internet addiction in adolescents according to this study.

### KEYWORDS

Adolescents; cross-sectional studies; descriptive study; internet addiction; socio-economic status

[Abstract:0271][Mood disorders]

## Thyroid function and dexamethasone suppression tests in children with major depressive disorder

Zehra Başar Kocagöz, Adnan Özçetin, Ahmet Ataoğlu, Şengül Cangür, Safiye Bahar Ölmez and Neslihan Yazar

Düzce University School of Medicine, Department of Psychiatry, Düzce Turkey

E-mail address: [zehrabasarkocagoz@outlook.com](mailto:zehrabasarkocagoz@outlook.com)

### ABSTRACT

**Objective:** Depression is a devastating mood disorder in which many factors are involved in its formation. Hypothalamic-hypophyseal-thyroid (HPT) axis and hypothalamic-hypophysis-adrenal (HPA) axis abnormalities are seen in patients with depression. When studies conducted in recent years have been examined, it is seen that studies on HPT axis have been made less frequently. Childhood trauma and biological effects of the trauma have been the subject of research and still remain important. Severe and prolonged traumatic stress can expose physiological loads to both neurotransmitters and neuroendocrine interactions from the body and brain stress response systems, and may cause permanent changes. It has been reported that stress may create a new adaptive physiological or behavioural state through epigenetic mechanisms. We aimed to examine the differences in the HPA and HPT axes of childhood trauma and depression in this study and the reason why depression did not occur in healthy siblings who were exposed to the same trauma.

**Methods:** The patients who were diagnosed with major depressive disorder (MDD) according to DSM-5 diagnostic criteria after clinical interview from outpatients who presented to the Düzce University School of Medicine Department of Psychiatry were included the study. Patients were divided into three groups: patients who according to DSM-5 MDD has been diagnosed (GROUP 1:  $n = 47$ ), the siblings who were healthy and close to the age of patients we selected for the first group (GROUP 2:  $n = 47$ ) and healthy control group (GROUP 3:  $n = 85$ ). The Sociodemographic Form, Beck Depression Scale (BDI), the Childhood Mental Trauma Scale (CTQ-28), and the Eysenck Personality Inventory were administered to the participants in all three groups. Participants in each group were given 1 mg of dexamethasone tablet to take oral route at 11:00 pm. Venous blood was collected at 8:00 am on the next day to evaluate the cortisol, TSH, free T3, free T4 values.

**Results:** Childhood trauma was positively correlated with depression. Furthermore, in the CTQ-28 subscale, there was a statistically significant association between physical abuse and

### KEYWORDS

Childhood trauma; depression; HPA; HPT; suicide

dexamethasone hypersuppression. The Serum T4 value of patients and brothers who were physically neglected were found to be significantly lower than controls. There was a significant positive correlation between CTQ-28 subscale scores and suicide attempts among all three groups. In addition, participants who attempted suicide had a higher rate of Serum T3 (ST3)/Serum T4 (ST4) than those who did not attempt suicide. We thought that depression and childhood trauma affected the HPA and HPT counterpart by creating different effects in some areas. **Conclusions:** In this study, we found significant differences between the MDD group and their siblings, and healthy controls in terms of HPA and HPT. To the best of our knowledge, this is the first study in which both axes are examined and the siblings of the patients are also examined. It has been suggested that the rate of ST3/ST4 or basal hormone levels in depressed patients may be supported by new studies and may be used as new markers for suicide, antidepressant response, long traumatic experiences, poor or good course of illness.

[Abstract:0275][OCD]

## Evaluation of the hemogram parameters in drug-naïve, comorbidity-free adolescents with obsessive–compulsive disorder

Halit Necmi Uçar<sup>a</sup>, Duygu Murat<sup>b</sup>, Şafak Eray<sup>a</sup> and Yaşar Tanır<sup>c</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Van Training and Research Hospital, Van, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Avcılar Hospital, İstanbul, Turkey; <sup>c</sup>Department of Child and Adolescent Psychiatry, Kutahya Dumlupınar University Evliya Celebi Training and Research Hospital, Kütahya, Turkey

E-mail address: [yasar\\_tanir@hotmail.com](mailto:yasar_tanir@hotmail.com)

### ABSTRACT

**Objective:** Obsessive-Compulsive Disorder (OCD) is a psychiatric disorder which has different etiopathogenic mechanisms. One of these mechanisms is immunologic factors. Studies on immunologic factors, various cytokines, and cellular elements were examined. In order to evaluate the immunological factors in psychiatric disorders, a simple and inexpensive method, hemogram parameters have been examined. We aimed to evaluate hemogram parameters in adolescents with OCD compared with controls.

**Methods:** A total of 31 patients diagnosed with OCD, who received no medical treatment within the past one month, were included in the study. The control group consisted of 47 healthy subjects with no organic and psychiatric disorders.

**Results:** Lymphocytes (effect size  $d = -0.51$ ,  $r = 0.24$ ), RDW (effect size  $d = -0.65$ ,  $r = 0.30$ ), platelets (effect size  $d = -0.74$ ,  $r = 0.34$ ), and PCT (effect size  $d = -0.38$ ,  $r = 0.19$ ) values of the adolescents with OCD were significantly lower than those of the control group. There were no differences between the two groups in terms of WBC, haemoglobin, RBC, HCT, MCV, MCH, MCHC, MPV, Neutrophils, NLR, and PLR.

**Conclusions:** The findings of the study reveal that lymphocytes and RDW tend to be lower in adolescents with OCD. The findings of our study are consistent with those of previous studies, indicating decreased hemogram parameters associated with inflammation in adolescents with OCD. Our study supported the notion of the need for larger sample studies on the routine use of blood parameters in adolescent OCD.

### KEYWORDS

Obsessive-compulsive disorder; adolescent; inflammation; hemogram parameters; lymphocytes

[Abstract:0279][Stress and related situations]

## Maternal psychological distress and coping strategies in mothers of children with myelomeningocele aged 0–6 years

Hatice Altun

Department of Child and Adolescent Psychiatry, Kahramanmaraş Sutcu Imam University School of Medicine, Kahramanmaraş, Turkey

E-mail address: [drhaticealtun@gmail.com](mailto:drhaticealtun@gmail.com)

### ABSTRACT

**Objective:** Myelomeningocele (MMC) is a complex chronic condition with multi-system involvement and the severity of deficits in functioning has an impact on parental stress. The aim of the study was to evaluate the difficulties experienced, maternal distress, and coping strategies of mothers of children with MMC aged 0–6 years.

### KEYWORDS

Myelomeningocele; children; anxiety; depression; maternal distress; coping strategies

**Methods:** The study included 40 mothers with a child aged 1–72 months with MMC and a control group of 40 mothers of age- and gender-matched healthy children. All mothers were asked to complete the socio-demographic form, the Symptom Check List–90–Revised (SCL-90-R), and the Coping Strategies with Stress Inventory (COPE) forms.

**Results:** The SCL-90-R somatization, depression, anxiety, hostility, phobic anxiety, psychotic, additional items subscales points and Global Severity Index (GSI) were determined to be significantly higher for the mothers of the MMC children compared to the control group mothers ( $p < 0.05$ ). All of the MMC patients had at least one urological, neurosurgical or orthopaedic problems and difficulties experienced. The denial and behavioural disengagement subscale points of the COPE were determined to be statistically significantly higher and the points of active coping, planning and focus on and venting of emotions were lower in the mothers of the MMC children compared with the control group ( $p < 0.05$ ). There were negative correlations between the maternal age and the somatization, obsessive-compulsive, anxiety, and paranoid thought subscales and GSI of the SCL-90-R. There were positive correlations between all the SCL-90-R subscales and GSI and the behavioural disengagement subscale points of the COPE.

**Conclusions:** The results of this study showed that mothers of children diagnosed with MMC had a higher level of maternal distress, more dysfunctional coping strategies, and less problem-focused coping strategies. It was also determined that the mothers experienced several difficulties in areas related to the biopsychosocial functionality of the disease. In the treatment process of children with MMC, screening the parents for psychiatric problems, providing the family with psychosocial support and developing appropriate coping skills in the mother could provide a positive contribution to the quality of life of both the child and the family. There is a need for further studies including parents of all age groups to be able to develop the area of providing social support for the mothers and other family members of these children.

[Abstract:0280][Psychopharmacology]

## Effects of long-term treatment with haloperidol and olanzapine on mice detrusor muscle

Mehmet Hanifi Tanyeri<sup>a</sup>, Mehmet Emin Büyükokuroğlu<sup>b</sup>, Pelin Tanyeri<sup>b</sup>, Oguz Mutlu<sup>c</sup>, Füzuran Yıldız Akar<sup>c</sup>, Güner Ulak<sup>c</sup> and Bekir Faruk Erden<sup>c</sup>

<sup>a</sup>Yenikent State Hospital, Department of Urology, Sakarya, Turkey; <sup>b</sup>Sakarya University School of Medicine, Department of Pharmacology, Sakarya, Turkey; <sup>c</sup>Kocaeli University School of Medicine, Department of Pharmacology, Kocaeli, Turkey

E-mail address: [pelintanyeri@yahoo.com](mailto:pelintanyeri@yahoo.com)

### ABSTRACT

**Objective:** In terms of morphology and innervation, bladder is a very complex organ. Impairment or change in the contractility of the bladder smooth muscle affects the voiding functions. The bladder normally shows no contractility or activity during the filling phase. When it is filled to capacity, desire to urinate and strong bladder contractions occur and this event continues until the bladder is empty. In overactive bladder, spontaneous contractions and detrusor instability are seen in the filling phase and detrusor hyperreflexia occurs. When these reflexes cannot be inhibited due to detrusor and sphincter instability, urinary incontinence occurs. Haloperidol and olanzapine are most frequently used for treatment of patients with schizophrenia. The aim of this study was to demonstrate the effects of first-generation antipsychotic haloperidol and second-generation antipsychotic olanzapine in mice isolated bladder using the organ bath system.

**Methods:** Thirty-five male inbred mice were used in this study. They were randomly divided into five experimental groups ( $n = 7$ ) as follows: saline; haloperidol 0.125 mg/kg, haloperidol 0.25 mg/kg, olanzapine 1 mg/kg, and olanzapine 2 mg/kg. Mice were treated by intraperitoneal (IP) injection of drugs during 21 days. Mice receiving only the vehicle (0.9% saline, IP) during 21 days served as control group. Then, the effects of drugs were examined on isoproterenol-induced relaxation responses of carbachol-induced contractions in isolated detrusor strips. First the detrusor strips were stimulated with 80 mM potassium chloride (KCl), then tissues were washed for a further 30 min, and precontracted with a submaximal concentration of carbachol ( $3 \times 10^{-6}$  M). After the contraction reached plateau, cumulative concentration–response curves to isoproterenol ( $10^{-8}$  to  $10^{-4}$  M) were obtained. At the end  $10^{-4}$  M, papaverin was obtained. The significance of differences was tested by one-way ANOVA with a post-hoc Tukey–Kramer test.

**Results:** We showed carbachol-induced contractions relaxed by isoproterenol and papaverin in mice detrusor strips obtained from atypical neuroleptic drug olanzapine-treated group. However, neither haloperidol nor olanzapine treatment had no effect on KCl responses of mice bladder. There were no significant differences in KCl-induced contractile responses among the groups.

### KEYWORDS

Haloperidol; olanzapine; overactive bladder; mice; antipsychotic

**Conclusions:** The over active bladder causes increase in the frequency and severity in contractions of detrusor smooth muscle. This causes urination frequently and allows the bladder to drain out without adequate filling of the bladder. Olanzapine increased the isoproterenol-induced relaxations of the detrusor smooth muscle that increased the bladder capacity. We showed that olanzapine may offer a potential drug for patients with over active bladder. Olanzapine might be clinically useful for the treatment of overactive bladder in patients that should use antipsychotic drugs. These findings open a new perspective to develop drugs in the treatment of overactive bladder in the future.

[Abstract:0283][OCD]

## Assessment of socio-demographic characteristics and obsessive-compulsive symptoms according to gender in adolescents with obsessive-compulsive disorder

Feyza Hatice Sevgen<sup>a</sup>, Hatice Altun<sup>a</sup>, Asiye Arıcı<sup>a</sup> and Fethiye Kılıçaslan<sup>b</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Sutcu Imam University School of Medicine, Kahramanmaraş, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Harran University School of Medicine, Sanliurfa, Turkey

E-mail address: [feyzasevgen@gmail.com](mailto:feyzasevgen@gmail.com)

### ABSTRACT

**Objective:** Obsessive-compulsive disorder (OCD) is a chronic psychiatric disorder characterized by repeated obsessions and/or compulsions, which may negatively affect social, academic, and family life of individuals due to waste of time caused by disease. Although no significant difference is observed in the prevalence and symptoms of obsessive-compulsive disorder, there may be differences in subtypes of OCD among genders. It has been suggested that contamination and aggressiveness obsessions and checking, counting, and cleaning compulsions are seen in children and adolescents with OCD. In this study, we aimed to assess relationship between gender and socio-demographic characteristics or distribution of obsessive-compulsive symptoms according in adolescents with OCD.

**Methods:** The study included 67 patients (aged 11–17 years) who presented to the Kahramanmaraş Sutcu Imam University School of Medicine's Department of Child and Adolescent Psychiatry and diagnosed as OCD without comorbid psychiatric diagnosis according to DSM-5 criteria. The patients were assessed by using socio-demographic data form, MOCS (Maudsley Obsessive-Compulsive Scale), and Y-BOCS (Yale-Brown Obsessive Compulsive Scale) scales.

**Results:** There were 38 girls (56.7%) and 29 boys (43.3%) in the study; mean age was  $13.50 \pm 1.87$  years in girls and  $14.10 \pm 2.30$  years in boys. When stratified according to age groups, there was a significant difference between genders. Of 40 patients aged 11–14 years, 27 were girls and 13 were boys ( $p < 0.05$ ). There were no significant differences between genders regarding other socio-demographic characteristics (birth order, number of siblings, household income level, and psychopathology in parents) and MOCS and Y-BOCS total scores ( $p > 0.05$ ). There were significant differences between genders in terms of MOCS subscales. Mean MOCS subscale scores were highest in cleaning item, followed by doubting, rumination, checking, and slowness items in girls, whereas it has highest in rumination item; followed by cleaning, checking, doubting, and slowness items in boys.

**Conclusions:** In our study, the finding that there were no significant differences in household income level, psychopathology in parents, being first child, and total scores were all consistent with the current literature. On the other hand, it was found that age at diagnosis was lower in girls and that rumination was most common symptom in boys. We concluded that understanding of most common obsessive-compulsive symptoms according to gender and socio-demographic data in children and adolescents would help in identifying individuals at risk for OCD and early diagnosis and timely treatment of childhood-onset OCD.

### KEYWORDS

OCD; adolescent; socio-demographic characteristics; gender; obsessive-compulsive symptoms

[Abstract:0287][Mood disorders]

## Assessment of neurochemical metabolite ratios with quantitative 3.0 Tesla H magnetic resonance spectroscopy in dorsolateral prefrontal cortex of patients with major depressive disorder

Mehmet Fatih Erbay<sup>a</sup> and Cengiz Darilmaz<sup>b</sup>



<sup>a</sup>Inonu University School of Medicine, Department of Radiology, Malatya, Turkey; <sup>b</sup>Inonu University School of Medicine, Department of Psychiatry, Malatya, Turkey

E-mail address: [cengizdarilmaz@gmail.com](mailto:cengizdarilmaz@gmail.com)

#### ABSTRACT

**Objective:** Major depressive disorder (MDD) is the most common mood disorder which has high rates of recurrence, accompanying cognitive, motor and somatic symptoms, associated with loss of physical and psychosocial abilities. So far, the neurobiological alterations related to pathophysiological mechanism of MDD are not still well recognized [1]. MR spectroscopy (MRS) studies on patients with MDD provide various findings regarding dysfunction of dorsolateral prefrontal cortex (DLPFC). In this study, possible effects of major depression on brain biochemistry were aimed to be examined using the method of MRS.

**Methods:** This preliminary study was carried out with 9 healthy individuals and 9 previously untreated major depressive disorder patients who were admitted to Inonu University School of Medicine's Department of Psychiatry and diagnosed with moderate-to-severe MDD based on DSM-5 diagnostic criteria and Hamilton Depression Rating Scale (HDRS) scores. Patients and healthy controls underwent brain MRS examination for left DLPFC on 3.0 T magnetic resonance device (Avanto, Siemens) and obtained data were compared in terms of metabolite ratios between the two groups. Here, we are presenting our preliminary results while the study is still ongoing.

**Results:** No statistically significant differences were found between patient and healthy control group in terms of age and gender ( $p = 1.00$ ;  $p = 0.969$ , respectively). The mean age was  $40.44 \pm 7.17$  in the patient group and  $40.33 \pm 4.30$  in the healthy control group. The HDRS average score of the patient group was calculated as  $23.39 \pm 4.95$ . Neurochemical metabolite ratios of left DLPFC in the patient and control group are shown in Table 1. Comparison of neurochemical metabolite ratios in left DLPFC between patient and control group revealed statistically significant differences in terms of Glu/Cr, Glu/NAA, and Glu/mlns ratios ( $p = 0.042$ ;  $p = 0.038$ ;  $p = 0.007$ , respectively). Glu/Cr, Glu/NAA, and Glu/mlns ratios in the patient group were lower than those in the controls. No statistically significant differences were found between two groups in terms of other parameters.

**Conclusions:** DLPFC is known to be responsible for executive functions and pertain to regulation of mood as a part of prefrontal cortex which is thought to play a vital role in the pathophysiology of MDD [2]. In our study, Glu/Cr and Glu/mlns ratios obtained from left DLPFC of moderate and severe MDD patients differ from those of healthy controls. Glutamate is the primary excitatory neurotransmitter of central nervous system. Since it is discovered that glutamate might cause neuronal cell death due to overstimulation of NMDA receptors and that this overstimulation may be induced by stress, glutamate is associated with the aetiopathogenesis of depression[3]. Our preliminary results suggest that glutamatergic system plays a role in the neurobiology of depression with moderate and severe features.

#### KEYWORDS

Depression; dorsolateral prefrontal cortex; glutamate; MR spectroscopy; neurochemical metabolite

**Table 1.** Neurochemical metabolite ratios of left DLPCs in the patient and control groups.

Metabolites	Patient group	Control group	P value
NAA/Cr	$2.09 \pm 0.28$	$2.29 \pm 0.18$	0.145
Gln/Cr	$0.17 \pm 0.27$	$0.17 \pm 0.26$	0.890
GSH/C	$1.12 \pm 0.23$	$0.96 \pm 0.36$	0.377
Cho/Cr	$0.84 \pm 0.08$	$0.78 \pm 0.15$	0.101
mlns/Cr	$1.24 \pm 0.46$	$1.15 \pm 0.29$	0.269
Glu/Cr	$1.59 \pm 0.72$	$2.12 \pm 0.86$	0.042
Lac/Cr	$0.42 \pm 0.54$	$0.28 \pm 0.36$	0.690
Glu/NAA	$0.74 \pm 0.31$	$0.98 \pm 0.20$	0.038
Gln/NAA	$0.07 \pm 0.12$	$0.07 \pm 0.11$	0.923
Gln/ mlns	$0.12 \pm 0.19$	$0.11 \pm 0.18$	0.863
Glu/ mlns	$1.21 \pm 0.63$	$2.01 \pm 0.50$	0.007

NAA: *n*-acetylaspartate; Cr: creatine; Gln: Glutamine; GSH: Glutathione; Cho: Cholin; mlns: Myo inositol; Glu: Glutamate; Lac: Lactate

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[Abstract:0289][Personality disorders]

## Reliability and validity of Turkish form of the personality inventory for DSM-5 (PID-5) adult version

Fikret Poyraz Çökmüş<sup>a</sup>, Serra Yüzeren<sup>b</sup>, Didem Sücüllüoğlu Dikici<sup>c</sup>, Orkun Aydın<sup>d</sup>, Pinar Ünal Aydın<sup>d</sup>, Fatma Akdeniz<sup>e</sup>, Sığnem Öztekin<sup>f</sup>, Emine Özge Çöldür<sup>b</sup>, Kuzeymen Balıkçı<sup>g</sup>, Ertuğrul Köroğlu<sup>h</sup> and Ömer Aydemir<sup>b</sup>

<sup>a</sup>Psychiatry Clinic, Nazilli State Hospital, Aydın Turkey; <sup>b</sup>Department of Psychiatry, Manisa Celal Bayar University, Manisa, Turkey; <sup>c</sup>Psychiatry Clinic, Manisa Mental Health and Disease Hospital, Manisa, Turkey; <sup>d</sup>Department of Psychology, International University of Sarajevo, Sarajevo, Bosnia and Herzegovina; <sup>e</sup>Psychiatry Clinic, Bolvadin Halil İbrahim Özsoy State Hospital, Afyon, Turkey; <sup>f</sup>Psychiatry Clinic, Viranşehir State Hospital, Şanlıurfa, Turkey; <sup>g</sup>Department of Psychiatry, Near East University, Lefkoşa, North Cyprus; <sup>h</sup>Psychiatry Clinic, Boylam Psychiatry Institute, Ankara, Turkey

E-mail address: [fikretpoyrazcokmus@hotmail.com](mailto:fikretpoyrazcokmus@hotmail.com)

### ABSTRACT

**Objective:** The DSM-5 Section III proposes a hybrid dimensional-categorical model of conceptualizing personality that includes assessment of impairments in personality functioning and maladaptive personality traits. Personality Inventory for DSM-5 (PID-5) Adult is a self-rated personality trait assessment tool with 220 items for age 18 and older. There are plenty of studies among different communities regarding the reliability and validity of PID-5. The aim of this study is to demonstrate the reliability and validity of the Turkish version of the PID-5 scale for adults.

**Methods:** A total of 618 adult patients diagnosed with at least one psychiatric disorder according to DSM-5 were recruited from inpatient and outpatient clinical settings for participating voluntarily in the study; 1382 voluntary healthy adults with no mental and physical disease were accepted as the control group. Both groups were assessed with PID-5 Adult test; moreover Structured Clinical Interview for DSM-IV Axis I Disorders Personality Questionnaire (SCID-II-PQ) was conducted only in the patient group. PID-5 for Adults test is a self-rated personality trait assessment scale with 220 items. PID-5 for Adults test evaluates the personality trait by twenty-five facets. Specific triplets of facets (groups of three) can be combined to yield indices of the five broader trait domains of Negative Affect, Detachment, Antagonism, Disinhibition, and Psychoticism. Each item of the test is rated by a 4-point scale. The response categories for the items are 0 = very false or often false; 1 = sometimes or somewhat false; 2 = sometimes or somewhat true; 3 = very true or often true. The SCID-II-PQ is a self-report measure comprised of 121 items rated dichotomously, which typically is administered prior to the SCID-II interview to shorten the interview period, that map onto criteria of DSM-IV personality disorder. Questionnaires were considered incomplete if more than 5% of the items were not answered in the test.

**Results:** The mean age of the healthy controls was 27.36; 53.9% of healthy controls were female ( $n = 745$ ), and more than half of the healthy controls were graduated from university ( $n = 828$ ). The mean age was 31.75 for patients; 53.4% of patients were female ( $n=330$ ), and 28.5% of whole patients completed university education ( $n=176$ ); 48.5% of patients were diagnosed with depression ( $n=300$ ) and 19.4% of them had anxiety disorders ( $n=120$ ). PID-5's facets of the personality trait and SCID-II-PQ personality disorders subscales were correlated positively. Cronbach's alpha values were  $>0.50$  (between 0.5–0.92) for each of the facets of the personality trait in PID-5.

**Conclusions:** These findings supported the reliability and validity of the Personality Inventory for DSM-5 in Turkish sample.

### KEYWORDS

DSM-5; personality; personality disorder; reliability; validity

[Abstract:0309][Addiction]

## Naltrexone implant for the treatment of opioid use disorders

Hüseyin Kara<sup>a</sup>, Özgen Özçelik<sup>a</sup>, Mehmet Murat Balcı<sup>a</sup>, Mehmet Murat Kuloğlu<sup>a</sup> and Talya Tomar<sup>b</sup>

<sup>a</sup>Department of Psychiatry, Akdeniz University School of Medicine, Antalya, Turkey; <sup>b</sup>Medical School, Akdeniz University School of Medicine, Antalya, Turkey

E-mail address: [kayfen\\_huseyin@hotmail.com](mailto:kayfen_huseyin@hotmail.com)

### ABSTRACT

**Objective:** Naltrexone was approved as an opioid antagonist by the Food and Drug Administration (FDA) in 1984. Studies have shown that long-acting slow effective release implant form has superior efficacy over oral naltrexone or placebo. In this study, we

### KEYWORDS

Naltrexone; implant; opioid; dependence

examined the socio-demographic and clinical characteristics of naltrexone implant patients in our clinic.

**Methods:** The patients who were treated with the implant at the Akdeniz University Alcohol and Substance Abuse Research and Application Center (AMBAUM) were evaluated retrospectively for one year. During the year, totally 152 implants were administered to 120 patients (5 female, 115 male).

**Results:** Twenty-five patients did not come to follow-up exams during the three months after the application and totally in 6 patients developed an infection and antibiotic treatment was started. In 1 of the 6 patients, the implant came out by itself. Allergy developed in 2 of 120 patients and the implant was removed in 1 of them due to a bullous allergic reaction. In 120 patients, 25% were found positive for Hepatitis C virus and 17.5% were found positive for Hepatitis B virus.

**Conclusions:** To the best of our knowledge, such an extensive implant application has not been performed and no study examined the socio-demographic characteristics of patients who were treated with the implant in Turkey. Studies have shown that naltrexone implant is more effective than oral naltrexone or placebo in patients with opioid or alcohol-use disorders.

[Abstract:0325][Neuroscience: neuroimaging-genetics-biomarkers]

## Neurocognitive, neurobiological and neurodevelopmental features of undiagnosed, early-stage, and unmedicated bipolar disorders: a comparative study

Siğnem Öztekin<sup>a</sup>, Fatma Akdeniz<sup>b</sup>, Fatma Taneli<sup>c</sup>, Arzu Oran<sup>d</sup>, Gülgün Yılmaz Ovalı<sup>e</sup> and Ömer Aydemir<sup>f</sup>

<sup>a</sup>Viransehir State Hospital, Department of Psychiatry, Viransehir, Sanliurfa, Turkey; <sup>b</sup>Bolvadin Halil Ibrahim Ozsoy State Hospital, Department of Psychiatry, Bolvadin, Afyonkarahisar, Turkey; <sup>c</sup>Celal Bayar University School of Medicine, Department of Biochemistry, Manisa, Turkey;

<sup>d</sup>Manisa State Hospital, Department of Biochemistry, Manisa, Turkey; <sup>e</sup>Celal Bayar University School of Medicine, Department of Radiology, Manisa, Turkey; <sup>f</sup>Celal Bayar University School of Medicine, Department of Psychiatry, Manisa, Turkey

E-mail address: [signem2009@hotmail.com](mailto:signem2009@hotmail.com)

### ABSTRACT

**Objective:** Recent studies emphasized that bipolar disorders (BD) are often unrecognized and the correct diagnosis and treatment may be delayed by 8–10 years. Prolonged duration between the initial onset of symptoms and appropriate treatment is associated with poorer social functioning, more annual hospitalizations, more lifetime suicide attempts. It is widely accepted that there are several biological, structural and functional changes in the brain of patients with BD. Even though our knowledge about BD and its prognosis has been growing, the initial effects of the illness have not been clear enough yet. The aim of this study was to include undiagnosed and drug-naïve patients who meet BD-I or BD-II diagnostic criteria according to the DSM-IV and evaluate the neurocognitive, neurobiological, and neurodevelopmental changes by comparing with chronic patients and healthy controls. The second goal of the study was to obtain data for recent staging researches.

**Methods:** In order to determine the high-risk group for bipolar disorders, Hypomania Check List-32 Revised (HCL-32R) was administered to the 2757 first grade students of Celal Bayar University (CBU). A total of 1688 participants who got score of  $\geq 14$  on HCL-32R were called by a psychiatrist and interviewed over the phone with the Mood Disorders Module of SCID-I. Afterwards, participants who had been suspected for the diagnosis of bipolar disorder were invited to Psychiatry Department of the Celal Bayar University Hospital for an interview of the whole SCID-I and a clinical evaluation by a psychiatrist. In the end, never diagnosed before and unmedicated patients who met BD-I or BD-II criteria according to DSM-IV (who experienced an undefined hypo/manic episode in the past but never medicated) were included in the study as drug-naïve patients (DNP) group ( $n = 27$ ). Healthy control (HC) group ( $n = 27$ ) and chronic patients (CP) group ( $n = 26$ ) were included to compare with the DNP group. All the participants completed a neurocognitive test battery which evaluates the executive functioning, attention, working memory and verbal learning. Beside this, brain magnetic resonance images (MRI) of all the participants were scanned and oxidative stress marker levels were measured for neurobiological analysis. In statistical analysis of neurocognitive data and oxidative stress marker levels, one-way ANOVA was performed to determine the group differences. Also statistical group analysis of the MRI data were performed by using QDEC tool of the FreeSurfer software package version v5.3.0.

**Results:** Verbal learning, attention, working memory, and executive functions were significantly worse in the two bipolar disorder patient groups than the HC group and the worst performance was belonging to the CP group. Levels of catalase enzyme were significantly higher in the two bipolar disorder patient groups than the HC group ( $p < 0.05$ ) and levels of SOD enzyme were significantly higher in the CP than the newly diagnosed bipolar disorder patients ( $p < 0.0001$ ).

### KEYWORDS

Bipolar disorder; early stage; neurocognition; neuroimaging; oxidative stress

Differences in some prefrontal, temporal, parietal, and limbic regions were determined in cranial MRI analysis of the three groups.

**Conclusions:** Neurobiological differences and neurocognitive dysfunctions occur since the early stages of the bipolar disorder and they have progressive courses.

[Abstract:0326][ADHD]

## Emotional intelligence in attention-deficit/hyperactivity disorder

Gamze Yapça Kaypaklı, Özge Metin, Perihan Çam Ray, Gonca Gül Çelik, Canan Kuygun Karıcı and Ayşegül Yolga Tahiroğlu

Cukurova University School of Medicine, Child and Adolescent Psychiatry Department, Adana, Turkey

E-mail address: [gamzeyapca@gmail.com](mailto:gamzeyapca@gmail.com)

### ABSTRACT

**Objective:** Emotional intelligence (EI) compromises emotional and social competencies, skills, and behaviours that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands, problems, and pressure. In this study, we aimed to examine the socio-demographic and clinical characteristics related to EI in adolescents with attention-deficit/hyperactivity disorder (ADHD).

**Methods:** The prospective study included 150 adolescents aged 12–18 years who were diagnosed with ADHD. Study sample consisted of sixty-nine (46%) girls and eighty-one (54%) boys. The socio-demographic data form, K-SADS, Conners' Parent Rating Scale, DSM-IV-Based Screening and Rating Scale for Disruptive Behaviour Disorders, and Emotional Quotient (EQ) were used.

**Results:** Of all patients, 41.3% ( $n = 62$ ) were ADHD-I, 58.7% ( $n = 88$ ) were ADHD-C according to DSM-5 criteria. Gender and ADHD type were not related to total EI scores. ADHD-C type ( $27.8 \pm 7.2$  &  $31.3 \pm 7.2$ ) and female patients ( $27.7 \pm 6.8$  &  $30.6 \pm 7.6$ ) have lower mean EI-stress management score than others ( $p < 0.05$ ). EI scores were higher in patients who exercise regularly and those who did not consume food additives. The difficulty in making friendships was related lower EI scores. EI and academic achievement were positively correlated ( $p < 0.05$ ). There was a negative correlation between total EI scores and the symptom severity of ODD, CD, and social problems ( $p < 0.05$ ). Patients whose parents reported spending special time with their child were found to have higher EI scores ( $107.9 \pm 15.2$  and  $103.7 \pm 17.7$ ), but it was not statistically significant.

**Conclusions:** Limited studies evaluated the EI in ADHD population. Individuals with ADHD in a sample of primary school children were found to have a lower overall EI score and sub-test scores than non-ADHD subjects. Low EI has been shown to indicate increased ADHD symptom severity in a population of university students. Our findings showed that high EI scores in patients with ADHD were thought to be associated with lower symptom severity, better attention, less learning problem, better academic achievement, and better social relationships. The conceptualization of EI as a group of learnable talent suggests that EI education may have a therapeutic value. In this context, the results we have obtained suggest that EI education may be useful in adolescents with ADHD.

### KEYWORDS

Academic achievement; adolescence; ADHD; emotional intelligence; social relationship

[Abstract:0329][Psychosomatic medicine and liaison psychiatry]

## Associations of childhood and current ADHD symptoms with pain in women with fibromyalgia: mediator role of depression and anxiety

Hakan Karas<sup>a</sup>, Halil Çetingök<sup>b</sup>, Reşat İlişer<sup>c</sup>, Elif Çarpar<sup>d</sup> and Muzaffer Kaşer<sup>e</sup>

<sup>a</sup>Beykent University, Department of Psychology, Istanbul, Turkey; <sup>b</sup>Bağcılar Education and Research Hospital, Department of Anesthesiology and Reanimation, Istanbul, Turkey; <sup>c</sup>Genesis Hospital, Department of Physical Therapy and Rehabilitation, Diyarbakır, Turkey; <sup>d</sup>Hınıs State Hospital, Department of Psychiatry, Erzurum, Turkey; <sup>e</sup>University of Cambridge, Department of Psychiatry, Cambridge, UK; Bahçeşehir University, Department of Psychiatry, Istanbul, Turkey

E-mail address: [hakankaras@yahoo.com](mailto:hakankaras@yahoo.com)

### ABSTRACT

**Objective:** Childhood attention-deficit/hyperactivity disorder (ADHD) symptoms may persist, co-occur with anxiety, depression, and other psychiatric symptoms in later life. Despite the fact that cognitive functions are impaired in patients with fibromyalgia and there is a high

### KEYWORDS

Fibromyalgia; ADHD; childhood ADHD; pain; depression; anxiety

rate of psychiatric comorbidity in these patients, little is known about childhood and current ADHD symptoms and their effects on pain in these patients. This study aimed to determine whether childhood and current ADHD symptoms were higher than control group and whether these symptoms predicted pain in patients with fibromyalgia.

**Methods:** Sixty-four patients who were followed up with fibromyalgia diagnosis in a physical therapy and rehabilitation and a specific pain outpatient clinic and 58 healthy individuals who have similar socio-demographic features were included in the study. A socio-demographic and clinical data form, Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Adult ADHD Self-Report Scale (ASRS), Wender Utah Rating Scale (WURS), Fibromyalgia Impact Questionnaire (FIQ) were administered to participants.

**Results:** BDI, BAI, ASRS, and WURS scores were found to be significantly higher in the fibromyalgia group than the control group. WURS scores were found to be a significant predictor of pain in patients with fibromyalgia. Our results also showed that both BDI and BAI scores significantly mediated the association between childhood ADHD symptoms and pain.

**Conclusions:** Childhood and current ADHD symptoms are found to be higher in patients with fibromyalgia than the control group. Childhood ADHD symptoms may contribute to development and exacerbation of pain in fibromyalgia. Taking the ADHD symptoms into account has an important role in the treatment of patients with fibromyalgia who have frequent cognitive symptoms. Our findings also suggested that the strong relationship between childhood ADHD symptoms and pain can be explained by the presence of depression and anxiety symptoms in these patients.

[Abstract:0331][Neuroscience: neuroimaging-genetics-biomarkers]

## Neurocognition and neuroimaging features in offspring of Parents with bipolar disorder: a comparative high-risk study

Güneş Şayan Can<sup>a</sup>, Gözde Ulaş<sup>b</sup>, Ayşegül Ildız<sup>c</sup>, Neslihan Emiroğlu<sup>b</sup>, Emel Ada<sup>d</sup> and Ayşegül Özerdem<sup>e</sup>

<sup>a</sup>Mardin State Hospital, Department of Psychiatry, Mardin, Turkey; <sup>b</sup>Dokuz Eylül University School of Medicine, Child and Adult Psychiatry, İzmir, Turkey; <sup>c</sup>Dokuz Eylül University Health Sciences Institute, Neuroscience, İzmir, Turkey; <sup>d</sup>Dokuz Eylül University School of Medicine, Department of Radiology, İzmir, Turkey; <sup>e</sup>Dokuz Eylül University School of Medicine, Department of Psychiatry, İzmir, Turkey

E-mail address: [gnsn87@gmail.com](mailto:gnsn87@gmail.com)

### ABSTRACT

**Objective:** The psychopathological processes of the bipolar disorder (BD) have not been fully elucidated yet. Even though there are research studies which were included the healthy relatives of BD in the literature, there is limited information on the ultra-high risk (UHR) and symptomatic individuals, who have not yet developed the disorder, play a role in this case. In recent years, longitudinal studies with large sample have been conducted to describe the "risk group" and predictors of BD. These studies showed that baseline anxiety/depression, baseline and proximal affective lability and proximal subsyndromal manic symptoms were the most important predictors of BD. The aim of this study was to reveal the differences of the structural brain changes and neurocognitive features of the UHR group by comparing with high-risk (HR) and healthy control (HC) groups. The second goal of the study was to identify predictive and biologic feature candidates of the disease.

**Methods:** In order to determine the high-risk groups for BD, the children of BD patients, who are aged 15–30 have been administered the Bipolar Prodromal Symptom Scale–Retrospective (BPSS–R) and structured clinical interviews. As a result of these, in the study, offsprings with subsyndromal manic symptoms or offsprings who had recurrent depressive disorder (DD) with high affective lability score(> 3) on BPSS–R were included as UHR ( $n = 21$ ) group and offsprings who did not have any psychiatric disorders or offsprings with a psychiatric diagnosis other than alcohol/substance abuse in the last six months, BD (1, 2, NOS- not otherwise specified), recurrent DD, all schizophrenia spectrum disorders, and autism spectrum disorders were included as the HR ( $n = 54$ ) group. The HC ( $n = 50$ ) group were included to compare with the UHR, HR groups. All the participants completed stop signal task (SST), Barratt Impulsiveness Scale (BIS-11), neurocognitive test battery which evaluates the executive functioning, working memory, verbal, visual learning, speed processing, and fluency. Beside this structure brain magnetic resonance imaging (brain MRI) and diffusion tensor imaging (DTI) were obtained. DTI data were analysed using FSL and the fractional anisotropy (FA) values were obtained by using ROI-based measurements. In statistical analysis of neurocognitive data, BIS-11 and SST scores, and the FA values; one-way ANOVA was performed to determine the group differences. Also statistical group analyses of the MRI data were performed by using QDEC tool of the FreeSurfer software package version v5.3.0.

**Results:** In our study, executive functions, verbal, visual learning impairments were determined

### KEYWORDS

Bipolar disorders; cognition; impulsivity; ultra-high risk; neuroimaging; DTI

in both risk groups. Fluency and working memory impairments increased in UHR group compared to HR ( $p < 0.05$ ) and HC ( $p = 0.000$ ) groups. Furthermore, increased behavioural impulsivity (lack of response inhibition and interference) was not found in the UHR group, while the cognitive impulsivity (lack of planning and attention) increased according to the HR and HC groups in all the tests. In addition, there were changes in the grey matter volumes of the fronto-limbic regions and FA of the corpus callosum (CC) body ( $p < 0.002$ ), fornix ( $p < 0.005$ ) of the white matter.

**Conclusions:** Neurocognitive impairments and structural changes of the brain regions occur in the UHR individuals and some of these impairments are candidate for biological trait markers of the disorder and stage-specific changes could predispose them to developing the disorder.

[Abstract:0334][Mood disorders]

## Comparison of inflammatory markers between patients with the first episode psychosis and bipolar mania

Rukiye Tekdemir, Hazan Tomar Bozkurt, Okan Imre, Vefa Erbasan, Memduha Aydın and Kürşat Altınbaş

Selcuk University School of Medicine, Department of Psychiatry, Konya, Turkey

E-mail address: [dr.rukiyetekdemir@gmail.com](mailto:dr.rukiyetekdemir@gmail.com)

### ABSTRACT

**Objective:** There is growing evidence about the role of inflammation in the underlying pathology of major psychoses. In this study, we aimed to compare inflammatory markers between hospitalized patients with the first-episode psychosis and bipolar mania.

**Methods:** Patients hospitalized with the diagnosis of first episode psychosis ( $n = 44$ ) or bipolar mania ( $n = 44$ ) were recruited for the study. Patients with comorbid medical conditions were excluded from the study. White blood cell (WBC), neutrophil, lymphocyte, platelet and monocyte counts, Neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (PLR) and monocyte-lymphocyte ratio (MLR) were evaluated.

**Results:** There were no significant differences between diagnostic groups in terms of age ( $p = 0.2$ ,  $x^2 = 1.6$ ), gender ( $p = 0.06$ ,  $z = -1.6$ ), neutrophil ( $p = 0.67$ ,  $t = -1.86$ ), lymphocyte ( $p = 0.45$ ,  $t = 0.76$ ), monocytes ( $p = 0.49$ ,  $t = -0.69$ ), platelet ( $p = 0.98$ ,  $t = 0.03$ ) counts, NLR ( $p = 0.09$ ,  $z = -1.18$ ), MLR ( $p = 0.29$ ,  $t = -1.07$ ), and PLR ( $p = 0.85$ ,  $z = -0.18$ ) values.

**Conclusions:** Even though inflammation markers were higher in psychotic disorders than bipolar disorder, we could not find any significant differences between the first episode psychosis patients and bipolar mania patients. It might be speculated that the fact that no differences were found between the first episode psychotic disorders and mood disorders, the difference might be related to the chronicity and duration of the disorder. However, it is difficult to make conclusive comments due to the lack of a healthy control group comparison and relatively small sample size in our study.

### KEYWORDS

First episode; psychosis; mania; inflammation markers

[Abstract:0339][Psychopharmacology]

## Chronic effects of second-generation antipsychotics on mice isolated detrusor smooth muscle

Mehmet Hanifi Tanyeri<sup>a</sup>, Mehmet Emin Büyükokuroğlu<sup>b</sup>, Pelin Tanyeri<sup>b</sup>, Oğuz Mutlu<sup>c</sup>, Furuzan Yıldız Akar<sup>c</sup>, Güner Ulak<sup>c</sup> and Bekir Faruk Erden<sup>c</sup>

<sup>a</sup>Yenikent Government Hospital, Department of Urology, 54100 Sakarya/Turkey; <sup>b</sup>Sakarya University, School of Medicine, Department of Pharmacology, 54100-Sakarya/Turkey; <sup>c</sup>Kocaeli University, School of Medicine, Department of Pharmacology, 41380-Kocaeli/Turkey

E-mail address: [pelintanyeri@yahoo.com](mailto:pelintanyeri@yahoo.com)

### ABSTRACT

**Objective:** The bladder normally shows no contractility or activity during the filling phase. When it is filled to capacity, desire to urinate and strong bladder contractions occur and this event continues until the bladder is empty. In overactive bladder, spontaneous contractions and detrusor instability are seen in the filling phase and detrusor hyperreflexia occurs. When

### KEYWORDS

Quetiapine; paliperidone; over active bladder; mice; antipsychotic



these reflexes cannot be inhibited, due to detrusor and sphincter instability, urinary incontinence occurs. Quetiapine and paliperidone, second-generation antipsychotic medications, are most commonly used for treatment of patients with schizophrenia, atypical antipsychotic agents are favoured over traditional antipsychotic medication as haloperidol because of their lower incidence of extrapyramidal side effects, their greater efficacy in improving negative symptoms of schizophrenia, and their effectiveness in treating schizophrenic patients not responding to conventional neuroleptics. The aim of the current study was to identify the effects of atypical antipsychotic drugs quetiapine and paliperidone in mice isolated bladder using the organ bath system.

**Methods:** Thirty-five male inbred mice were used in this study. They were randomly divided into five experimental groups ( $n=7$ ) as follows: saline, quetiapine 5 mg/kg, quetiapine 10 mg/kg, paliperidone 0,25 mg/kg, and paliperidone 0,50 mg/kg. Mice were treated by ip injection of drugs for 21 days. Mice receiving only the vehicle (0.9% saline, IP) for 21 days served as the control group. Then, the effects of drugs were examined on isoproterenol-induced relaxation responses of carbachol-induced contractions in isolated detrusor strips. First, the detrusor strips were stimulated with 80 mM KCl, then tissues were washed for a further 30 min and precontracted with a submaximal concentration of carbachol ( $3 \times 10^{-6}$  M). After the contraction reached plateau, cumulative concentration–response curves to isoproterenol ( $10^{-8}$  to  $10^{-4}$  M) were obtained. The significance of differences was tested by one-way ANOVA with a post-hoc Tukey–Kramer test.

**Results:** We showed that carbachol-induced contractions were dose-dependently relaxed by isoproterenol in mice detrusor strips obtained from atypical antipsychotic drugs quetiapine and paliperidone treated group. However, neither quetiapine nor paliperidone treatment had no effect on potassium chloride (KCl) responses of mice bladder. There were no significant differences in KCl-induced contractile responses among the groups.

**Conclusions:** The overactive bladder causes increase in frequency and severity in contractions of detrusor smooth muscle. This causes urination frequently and allows the bladder to drain out without adequate filling of the bladder. Quetiapine and paliperidone increased the isoproterenol-induced relaxations of the detrusor smooth muscle that these two antipsychotics increased the bladder capacity. We demonstrated that quetiapine and paliperidone may have represented a potential drug for patients with overactive bladder. These two drugs might be clinically useful for the treatment of overactive bladder in patients who should use antipsychotic drugs. These findings open a new approach to develop drugs for overactive bladder in the future.

[Abstract:0341][Mood disorders]

## Theory of mind ability as a social cognitive skill in first-episode depressive adolescents

Uğur Tekin<sup>a</sup>, Ayşegül Satar<sup>b</sup>, Ayşe Nur Aydın<sup>b</sup>, Hatice Serpil Erermiş<sup>b</sup> and Orhan Kocaman<sup>c</sup>

<sup>a</sup>Health Sciences University Van Research and Training Hospital, Van, Turkey; <sup>b</sup>Ege University School of Medicine, Department of Child and Adolescent Psychiatry, Izmir, Turkey; <sup>c</sup>TR Ministry of Health, DPU Kütahya Evliya Çelebi Research and Training Hospital, Kütahya, Turkey

E-mail address: [dr\\_orhankocaman@hotmail.com](mailto:dr_orhankocaman@hotmail.com)

### ABSTRACT

**Objective:** Major depressive disorder (MDD) is the most prevalent mood disorder, characterized by persistent and severe low mood and/or loss of enjoyment and interest and is associated with significant functional and social impairment. Depressed individuals withdraw from social contacts, report less enjoyment in social interactions and as a result have fewer social contacts than non-depressed individuals.

Social cognitive deficits can contribute to depression and to psychosocial impairment during depression. We conducted a prospective case–control study to compare theory of mind (ToM) abilities, a cognitively more demanding aspect of social cognition of adolescents with first episode untreated MDD and healthy controls.

**Methods:** This study included 35 adolescents with first episode untreated MDD and 37 healthy controls with similar socio-demographic features aged 13–18 years. We use a ToM tasks named Reading the Mind in the Eyes Task (RMET) as social cognition measure and Beck Depression Scale and Clinic Global Impression Scale–Severity (CGI-S) to diagnose and measure severity of depression.

**Results:** There were no statistically significant differences in Reading the Mind in the Eyes Task that assess theory of mind (ToM) abilities as an aspect of social cognitive skills. Score of RMET in depressive group was  $20.89 (\pm 3.2)$  and in healthy controls, it was  $21.27 (\pm 2.6)$ . ( $p=0.580$ )

**Conclusions:** Contrary to our prediction, a social cognitive skill ToM was roughly equivalent between the two groups and there was no significant link between symptom severity and social cognitive ability.

### KEYWORDS

Adolescent; first episode; major depressive disorder; social cognition; theory of mind

Though the literature on social cognition and depression reports that social cognitive skills are impaired in depressive adults, in our study which is conducted in adolescent population, we found no significant difference between depressive group and healthy control group in the RMET administered to evaluate the theory of mind. Although this is one of the first studies conducted in this age group to the best of our knowledge, further studies about this issue will be helpful for better understanding and interpretation.

[Abstract:0342][Other]

## Comparison of HbA1c levels and problems in CBCL in Type I DM-diagnosed children and adolescents

Nihal Yurteri Çetin<sup>a</sup> and Aynur Akay<sup>b</sup>

<sup>a</sup>Düzce University School of Medicine, Child and Adolescent Psychiatry, Düzce, Turkey; <sup>b</sup>Dokuz Eylül University School of Medicine, Child and Adolescent Psychiatry, İzmir, Turkey

E-mail address: [yurterinihal@gmail.com](mailto:yurterinihal@gmail.com)

### ABSTRACT

**Objective:** Type I Diabetes Mellitus (DM) is one of the most common chronic diseases of childhood. Despite the improvements in the treatment of Type I DM, difficulties in the treatment process negatively affect the quality of life in children and adolescents with Type I DM and cause psychosocial problems. The aim of this study was to compare HbA1c level and the problems in Child Behaviour Check List (CBCL) in Type I DM-diagnosed children and adolescents.

**Methods:** Sixty Type I DM-diagnosed children and adolescents aged between 8 and 16 years were enrolled in this study. The diagnostic assessments of psychiatric disorders in all of the subjects were made according to the DSM-IV criteria, the Kiddie-Schedule for Affective Disorders and Schizophrenia for School-Age Children—Present and the Lifetime (K-SADS PL). Type I DM patients with psychiatric disorder or another physical disorder were excluded from the study. To analyse the socio-demographic backgrounds of the participants, a semi-structured questionnaire designed by the researcher was administered to all subjects. HbA1c levels of Type I DM cases were obtained from patients' data in paediatric endocrinology department. Pearson's correlation tests were used in order compare HbA1c level and the problems in Child Behaviour Check List (CBCL) in Type I DM-diagnosed children and adolescents.

**Results:** Pearson's correlation tests revealed that there was a significant positive correlation ( $r = 0.31$ ,  $p = 0.02$ ) between the HbA1c level and CBCL-Somatic Complaints Subscale and a significant negative correlation between HbA1c level and CBCL-Social Problems Subscale ( $r = -0.33$ ,  $p = 0.01$ ). Both correlations were found to be at moderate level.

**Conclusions:** It is assumed that high levels of HbA1c mean uncontrolled Diabetes Mellitus and therefore directly related to somatic complaints. In addition, high levels of HbA1c also induce more visits to hospital. That might be the reason why parents take care of their child better. Furthermore, meeting the children with the same problems and also meeting doctors trying to understand the child might make the child feel better as well. Consequently, those advantageous situations might be the reasons of the decline in social problems.

### KEYWORDS

Child Behaviour Check List; CBCL Social Problems; CBCL Somatic Complaints; HbA1c; Type I DM

[Abstract:0351][Neuroscience: neuroimaging-genetics-biomarkers]

## Comparison of nitric oxide and adrenomedullin levels of children with attention-deficit/ hyperactivity disorder and anxiety disorder

Yüksel Sümeýra Karagöz<sup>a</sup>, Özlem Doğan<sup>b</sup>, Serenay Ülkar<sup>b</sup> and Birim Günay Kılıç<sup>c</sup>

<sup>a</sup>Child and Adolescent Psychiatry Department, Trabzon Kanuni Training and Research Hospital, Trabzon, Turkey; <sup>b</sup>Department of Biochemistry, Ankara University School of Medicine, Ankara, Turkey; <sup>c</sup>Child and Adolescent Psychiatry Department, Ankara University School of Medicine, Ankara, Turkey

E-mail address: [dr\\_y\\_s\\_k@hotmail.com](mailto:dr_y_s_k@hotmail.com)

### ABSTRACT

**Objective:** The aim of this study was to compare serum nitric oxide (NO) and adrenomedullin (ADM) levels in children with attention-deficit/ hyperactivity disorder, anxiety disorder, and healthy controls, especially due to their effect mechanisms as they may predict anxiety symptom, and to examine the relationship between serum nitric oxide and adrenomedullin

### KEYWORDS

Attention-deficit/ hyperactivity disorder; anxiety disorder; nitric oxide; adrenomedullin; child

levels anxiety symptoms in children with attention-deficit/ hyperactivity disorder, anxiety disorder, and healthy control.

**Methods:** Clinically normal intelligence, 6–12 years of age, without any medical and psychiatric comorbidities, 27 children with attention-deficit/ hyperactivity disorder, 27 children with anxiety disorder, and 23 children with no psychiatric disorders were included in the study. The study participants were interviewed by using the Semi-Structured Clinical Interview for DSM-IV Scale for Affective Disorders and Schizophrenia Interview for School Children - Now and for the Life Long Version (K-SADS-PL). State-Trait Anxiety Inventory (STAI) was completed by all the children participating in the study. Parents and teachers of children Atilla Turgay Screening and Assessment Scale Based on DSM-IV for Behavioural Disorders in Children and Adolescents (ATS), Conners Parent Rating Scale Revised Long Form (CPRS-LF) and Conners' Teacher Rating Scale Revised Long Form (CTRS-LF) were filled.

**Results:** There were no statistically significant differences in terms of serum nitric oxide and adrenomedullin levels between attention-deficit hyperactivity disorder, anxiety disorder, and control groups. There were no statistically significant differences in terms of serum nitric oxide and adrenomedullin levels of the children included in the sampling group according to age and gender. There was no statistically significant relationship between serum nitric oxide and adrenomedullin levels and attention-deficit hyperactivity disorder, anxiety disorder, and state-trait anxiety scores of control group children (Table 1).

**Conclusions:** In our study, there was no difference in serum nitric oxide and adrenomedullin levels between attention-deficit hyperactivity disorder, anxiety disorder, and control groups. There have been several studies in the field of psychiatric disorders. Changes in serum nitric oxide and adrenomedullin levels have been reported to decrease or increase when compared to healthy controls. These changes are explained by the oxidative stress in the field and the dysfunction of the hypothalamus-pituitary-adrenal axis. The serum nitric oxide and adrenomedullin levels in our study did not differ significantly from the literature. This can be explained by the low number of samples, the fact that the adult age group is not included in the study, the oxidative stress and other parameters affecting the dysfunction of the hypothalamus-pituitary-adrenal axis. Attention-deficit hyperactivity disorder, anxiety disorder and serum nitric oxide and adrenomedullin levels were not significantly correlated with anxiety symptom in the context of state-continuity anxiety scale. There are no studies that relate serum nitric oxide and adrenomedullin levels to symptoms in the field. In the future, there is a need for longitudinal studies to assess causal relationship with the number of larger samples to be made.

**Table 1.** Correlations of Serum Adrenomedullin and Nitric Oxide Levels with State-Trait Anxiety Inventory (STAI) Scores.

		ADM	NO
State anxiety score	<i>r</i>	0.040	0.040
	<i>p</i>	0.720	0.726
Trait anxiety score	<i>r</i>	0.013	−0.040
	<i>p</i>	0.907	0.725

*Spearman's correlation test, r = correlation coefficient.*

[Abstract:0362][ADHD]

## Investigation of impulsivity and attention-deficit/ hyperactivity disorder in epileptic patients

Hacer Akgül Ceyhan<sup>a</sup>, Esat Fahri Aydın<sup>a</sup>, Tuba Ülkevan<sup>b</sup> and Nilifer Gürbüz<sup>a</sup>

<sup>a</sup>Department of Psychiatry, Ataturk University School of Medicine, Erzurum, Turkey; <sup>b</sup>Department of Psychiatry, Health Science University Van Training and Research Hospital, Van, Turkey

E-mail address: [drhacer@yahoo.com](mailto:drhacer@yahoo.com)

### ABSTRACT

**Objective:** A number of conditions have been reported to be comorbid with epilepsy, including psychiatric disorders. Epileptic activity in both frontal and temporal lobes can cause impulsivity, attention problems and behavioural changes associated with orbitofrontal dysfunction. Attention Deficit Hyperactivity Disorder (ADHD) and impulsivity problems in childhood-onset epilepsies are monitored in almost one-third of cases. Approximately half of ADHD in childhood persists into adulthood. Besides this, symptoms of ADHD (such as inattention, hyperactivity, behavioural disorders) are often side effects of antiepileptic drugs. There are limited data on the frequency of ADHD symptoms in adult epilepsy patients. Here, we aimed to examine the relationship between impulsivity, ADHD symptoms, and life quality in epilepsy patients.

### KEYWORDS

Epilepsy; ADHD; impulsivity; adulthood; comorbidity

**Methods:** The study included 30 epilepsy patients aged 18–65 years followed by Atatürk University Hospital Neurology outpatient clinic and 30 healthy controls. Participants were assessed by the Sociodemographic Clinical Data Form, the Adult Attention-deficit/ hyperactivity disorder DSM-IV-based diagnostic screening scale (adult ADD), the Psychological Symptom Check List (SCL-90-R), the Barratt Impulsivity Questionnaire-11(BIQ-11), and the Quality of Life Scale (WHOQOL-Brief).

**Results:** Epilepsy patients and control group were similar in terms of age, gender, education level, and presence of psychiatric family history. There were significant differences between groups in marital status, presence of children, and smoking. The number of marriages was higher in the control group but the number of grade repetitions, disciplinary punishments, physical traumas, job changes, forensic events, traffic accidents, and traffic fines were similar. The paranoid ideation subscale scores of SCL-90-R were not statistically different besides somatization, anxiety, obsessive-compulsiveness, depression, interpersonal sensitivity, psychoticism, hostility, phobic anxiety subscales, and total scores were significantly higher in epilepsy patients ( $p < 0.05$ ). There were significant differences between the plan subscale scores of the BIQ-11 ( $p < 0.05$ ), while motor, attention, and total scores were similar ( $p > 0.05$ ). According to adult ADD attention subscale, scores were statistically higher in epilepsy patients ( $p < 0.05$ ) but hyperactivity and impulsivity-related features were similar ( $p > 0.05$ ). We did not find any significant differences in life quality between the groups.

**Conclusions:** Our findings indicated that inattentiveness symptoms in epilepsy patients significantly higher than controls. Most of the previous studies have shown similar to our findings indicating the predominance of inattentiveness subtype in epilepsy patients comorbid with ADHD. The high occurrence of ADHD inattentiveness subtype in epilepsy provides insight into pathogenesis by revealing shared neurobiological mechanisms underlying multiple disorders. It has been suggested that specific neuropsychological impairments both in epilepsy and in ADHD like attention and working memory deficits can be responsible for the increased prevalence of inattentiveness symptoms. Alternatively, ADHD, like epilepsy, is a manifestation of underlying neurodevelopmental vulnerability or it may be the presence of ADHD that predisposes to a seizure disorder. Finally, treatment options for neuro-behavioural comorbidities remain to be developed. Treating physicians should be vigilant to the possibility of these comorbidities in epilepsy patients and future research should examine the impact of comorbidities on treatment outcomes in epilepsy.

[Abstract:0369][Sleep disorders]

## Bruxism prevalence in non-medicated children with ADHD: preliminary results of 34 children in a clinical sample

Hasan Cem Aykutlu and Işık Görker

Trakya University School of Medicine, Child and Adolescent Psychiatry Department, Edirne, Turkey

E-mail address: [hasancemay@hotmail.com](mailto:hasancemay@hotmail.com)

### ABSTRACT

**Objective:** Bruxism is defined as a diurnal or nocturnal involuntary, non-functional, spasmodic gnashing, grinding, and clenching of teeth by the American Academy of Orofacial Pain. It is also defined as a sleep-related movement disorder by the International Classification of Sleep Disorders. Bruxism in children with ADHD has gained attention of researchers because of the reports of bruxism as a stimulant side effect. In some studies, it is reported that bruxism prevalence is higher in children with ADHD than healthy controls but the prevalence and effects of bruxism is mostly studied on medicated children with ADHD. With regard to the clinical evidence of ADHD and sleep problems association, it is aimed to present the preliminary results of prevalence of bruxism and discuss the related factors in non-medicated children with ADHD with this study.

**Methods:** Thirty-four cases of newly diagnosed ADHD without medical treatment and chronic medical disease were obtained as the study group. The Schedule for Affective Disorders and Schizophrenia for School Age Children was used to diagnose ADHD and comorbidities. The Children's Sleep Habits Questionnaire was used to detect sleep bruxism and provide information of sleep habits. Parents were asked for signs and symptoms related to bruxism in their children using a questionnaire.

**Results:** Prevalence of sleep bruxism was found in 23.5% ( $n = 8$ ) in the study group; 50% of children with sleep bruxism ( $n = 4$ ) also had awake bruxism and 62.5% ( $n = 5$ ) described symptoms related to bruxism (tooth wear, jaw clicking, facial pain). ADHD combined type was found as the most common type (62.5%,  $n = 5$ ) and ODD as the most common comorbidity (62.5%,  $n = 5$ ) in children with sleep bruxism.

### KEYWORDS

Sleep bruxism; prevalence; ADHD; early diagnosis; child psychiatry

**Conclusions:** Although the number of cases is limited, our prevalence rate is similar with the previous studies. We may suggest that bruxism and related symptoms can be found frequently in non-medicated children with ADHD. Further studies especially focused on non-medicated children with ADHD may contribute to the clarification of the relationship between bruxism and ADHD.

[Abstract:0373][Psychosomatic medicine and liaison psychiatry]

## Evaluation of psychiatric comorbidities, traditional and cyber bullying-victimization levels, problematic internet use and other related psychiatric factors in adolescents with cleft lip and palate: a case-control study

Emel Özen<sup>a</sup>, Evrim Aktepe<sup>a</sup>, Mustafa Asım Aydın<sup>b</sup> and Dudu Dilek Yavuz<sup>b</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Suleyman Demirel University School of Medicine, Isparta, Turkey; <sup>b</sup>Department of Plastic and Reconstructive Surgery, Suleyman Demirel University School of Medicine, Isparta, Turkey

E-mail address: [eml\\_ozen@hotmail.com](mailto:eml_ozen@hotmail.com)

### ABSTRACT

**Objective:** Lip and palate clefts are the most common congenital craniofacial anomalies and important because of their different extent and severe deformity. These deformities negatively affect the functions of the individual such as speech, nutrition, and respiration and lead to aesthetic and psychosocial problems. In the literature, there are studies showing that psychosocial functioning has been adversely affected in adolescents with cleft lip and palate. The aim of this study was to assess the presence of psychiatric comorbidities and levels of self-esteem, social appearance anxiety, loneliness, problematic Internet usage, traditional and cyber bullying-victimization in adolescents with cleft lip and palate as compared with a control group.

**Methods:** This study consisted of 40 adolescents who were followed up with a diagnosis of cleft lip and palate and 40 age- and gender-matched healthy controls. The Piers-Harris Self-Esteem Scale, Social Appearance Anxiety Scale, UCLA Loneliness Scale Short Form, Problematic Internet Usage Scale, Cyber Bullying and Victimization Scale, and Peer Bullying Identification Scale were administered to the patient and control groups. Both groups were assessed according to the Schedule for Affective Disorders and Schizophrenia for School Age Children-Present and Lifetime Version-Turkish Version. Additionally, the Cleft-Q Quality of Life Scale was administered to only the patient group.

**Results:** It was found that the social appearance anxiety of the adolescents with cleft lip and palate were significantly higher than the controls ( $p = 0.003$ ). These adolescents spent most of their spare time on the internet, and this was significantly higher in the patient group than in the control group ( $p = 0.002$ ). The presence of psychiatric diagnoses was found to be significantly higher in the patient group compared to the control group ( $p = 0.002$ ). Social phobia was the most common diagnosis in the adolescents with cleft lip and palate. Nocturnal enuresis was the most common second psychiatric diagnosis in the adolescents with cleft lip and palate. These two diagnoses were significantly higher in the patient group than in the control group (respectively,  $p = 0.007$  and  $p = 0.012$ ). There were no significant differences between the patient and control groups in terms of self-esteem, loneliness, problematic internet use, cyber bullying-victimization, peer bullying-victimization scores.

**Conclusions:** Cleft deformity may increase the level of social appearance anxiety by leading to negative body perception, fear of negative evaluation from others, and dissatisfaction with facial appearance in adolescents. The problems of adolescents with cleft lip and palate related to facial appearance and speech may cause inadequacy in social interaction, which may lead them to spend more time on the Internet in their spare time to meet their social needs. Higher rates of psychiatric comorbidity in the adolescents with cleft lip and palate in our study suggest that psychiatric evaluation should be included in cleft lip and palate treatment plans and that a multi-disciplinary approach is important for cleft lip and palate management.

### KEYWORDS

Adolescent; cleft lip and palate; comorbidity; Internet; social appearance anxiety

[Abstract:0377][Mental retardation]

## Relationship between emotional behavioural problems and WISC-R intelligence test sub-scale scores in children and adolescents with intellectual disability

Umut Karaaslan, Hatice Altun and Abdullah Karataş

Department of Child and Adolescent Psychiatry, Sütçü İmam University School of Medicine, Kahramanmaraş, Turkey

E-mail address: [umut.krsln7@gmail.com](mailto:umut.krsln7@gmail.com)



**ABSTRACT**

**Objective:** Emotional and behavioural problems often accompany children and adolescents with intellectual disability (ID). In this study, it was aimed to evaluate the relationship between emotional behavioural problems and the intelligence test sub-scales of the Wechsler Intelligence Scale for Children (WISC-R) in children with intellectual disability (ID).

**Methods:** Forty-one patients with ID according to DSM-5 between the ages of 6 and 17 years were included in the study in addition to 41 age- and gender-matched healthy children as the control group. All mothers were asked to fill out the socio-demographic data form and the Strengths and Difficulties Questionnaire (SDQ). The intelligence levels of the groups were determined using the WISC-R intelligence test.

**Results:** There were no significant differences between the patients and the control group in terms of age, gender, parental psychiatric disease, as well as smoking, alcohol and drug use in pregnancy ( $p > 0.05$ ). However, there were statistically significant differences in terms of parental education status, kinship, income level of family, psychosocial stress in pregnancy, a difficult childbirth history, child's psychomotor development stages, and a family history of intellectual disability ( $p < 0.05$ ). The behavioural problems sub-scale scores of SDQ were significantly higher, and prosocial problems were significantly lower in the patients compared to the control group ( $p < 0.05$ ). In the patient group, there was a negative correlation between the WISC-R performance sub-score and SDQ's peer problems sub-group ( $r = -0.330$ ,  $p = 0.035$ ). There were no correlations between the verbal and total WISC-R scores and SDQ sub-groups ( $p > 0.05$ ).

**Conclusions:** The results of this study showed that behavioural problems were more prevalent in the children and adolescents with ID; WISC-R total and verbal scores were not significantly correlated with SDQ sub-groups, and the patients with ID had more peer problems as their WISC-R performance score declined significantly.

**KEYWORDS**

Intellectual disability; WISC-R; emotional behavioural problems; SDQ; peer problems

[Abstract:0379][Other]

## Assessment of abuse awareness in mothers from low socio-economic status

Zehra Sancak<sup>a</sup> and Nihal Yurteri Çetin<sup>b</sup>

<sup>a</sup>Istanbul Gelişim University, Clinical Psychology, Istanbul, Turkey; <sup>b</sup>Düzce University School of Medicine, Child and Adolescent Psychiatry, Düzce, Turkey

E-mail address: [yurterinihal@gmail.com](mailto:yurterinihal@gmail.com)

**ABSTRACT**

**Objective:** In this study, the abuse awareness of mothers with children aged 4–6 years and from low socio-economic groups was examined. The aim of this research was to understand the relationship between socio-demographic conditions and mothers' abuse awareness.

**Methods:** A total of 100 mothers residing in the same neighbourhood with low-income families were enrolled in this study. The sample includes mothers from different ages and with different occupations whose children included in the study were aged 4–6 years. The Sociodemographic Form and Abuse Awareness Scale-Parent Form were administered to all mothers in the sample.

**Results:** It was revealed that there was statistically significant difference between male and female children groups in terms of mother's abuse awareness. Furthermore, there was a significant correlation between mother's abuse awareness and marital status.

**Conclusions:** The research revealed that the level of abuse awareness was higher among mothers with a daughter compared to those with a son. It was assumed that mothers' abuse awareness sensitivity increases after giving a birth to a girl because of the fact that sexual abuse to girls were reported to be more frequent than boys. Moreover, the results of this study suggested that there was a relationship between the level of abuse awareness and mother's marital status. It was found that married mothers had higher awareness compared to divorced or widowed mothers. This might be related to the fact that single mothers have restricted time for their children compared to married mothers due to economical requirements.

**KEYWORDS**

Abuse Awareness Scale; abuse awareness; adolescent; children; socio-economic status

[Abstract:0386][Anxiety disorders]

## Caregiver burden and associated risk factors in relatives of patients with obsessive-compulsive disorder

Didem Sücüllüoğlu Dikici<sup>a</sup>, Fikret Poyraz Çökmüş<sup>b</sup>, Erhan Eser<sup>c</sup> and Mehmet Murat Demet<sup>d</sup>

<sup>a</sup>Psychiatry Clinic, Manisa Mental Health and Disease Hospital, Manisa, Turkey; <sup>b</sup>Psychiatry Clinic, Nazilli State Hospital, Aydın, Turkey; <sup>c</sup>Department of Public Health, Manisa Celal Bayar University School of Medicine, Manisa, Turkey; <sup>d</sup>Department of Psychiatry, Manisa Celal Bayar University School of Medicine, Manisa, Turkey

E-mail address: [didemsuculluoglu@hotmail.com](mailto:didemsuculluoglu@hotmail.com)

#### ABSTRACT

**Objective:** Obsessive-compulsive disorder (OCD) is a chronic disease characterized by obsessions and/or compulsions, which can be exacerbated occasionally, negatively affecting the individual's daily functions, social relationships, occupational functioning, and quality of life. There are few studies available in the literature regarding causality of burden in relatives of patients with OCD. We aimed to evaluate disease burden in caregivers of patients with OCD and factors that negatively affect their lives.

**Methods:** Study population consisted of sixty-eight patients with OCD and their caregivers. Structured Clinical Interview for DSM-IV /Clinical Version (SCID-I/CV), Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), Y-BOCS Symptom Checklist, Hamilton Depression Rating Scale (HDRS), and World Health Organization Quality of Life Questionnaire-Brief Form (WHOQOL-BREF-TR) were administered to the patients while SCID-I/CV and Burden Assessment Scale (BAS) were administered to the caregivers. The dependent variable was burden in caregivers. Student's t test, MWU, ANOVA, Kruskal-Wallis ANOVA and Pearson or Spearman's correlations, where appropriate, and multiple linear regression were performed in multivariate analyses. *P*-value of < 0.05 was set up as significant in the analyses.

**Results:** According to linear regression analysis results, patient's gender, patient's occupational status, Y-BOCS obsession scores, YBOCS compulsion scores and patient's WHOQOL-Brief environmental dimension scores were significant predictor for the OCD caregiver's burden (*p* < 0.05).

**Conclusions:** Caregivers whose patients do not work had higher burden. This may be due to the fact that the relatives of the patient have more time with the non-working patient, more exposure to disease symptoms and consequences, and an economic burden due to reduced financial income. As a matter of fact, as the quality-of-life environmental dimension score of the patient with indirect indicator of socio-economic level decreases, the increase of disease burden also supports this finding. Similar to our study, other studies have shown the burden of disease in the relatives of non-working patients as high [1]. In addition, in our study, Y-BOCS obsession and compulsion score positively correlated with caregiver burden. Similar studies in this area have shown that the severity of the disease was correlated with caregiver burden consistent with our findings [1,2]. As the severity of disorder increases, the number of hospitalizations would increase, the duration of treatment would be prolonged, and the economic burden would increase as well. Consequently, perceived burden was affected by severity of the disease and lower socio-economic level.

#### KEYWORDS

Disease burden; caregiver; family burden; obsessive-compulsive disorder

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[Abstract:0393][Schizophrenia and other psychotic disorders]

## A retrospective study with psychotic patients in a community mental health centre: hospitalization and polypharmacy

Mehmet Emrah Karadere<sup>a</sup>, Ece Yazla Asafov<sup>a</sup> and Halil İbrahim Ölçüm<sup>b</sup>

<sup>a</sup>Hitit University, School of Medicine Department of Psychiatry, Çorum, Turkey; <sup>b</sup>Erol Olçok Education and Research Hospital, Çorum, Turkey

E-mail address: [karadere26@yahoo.com](mailto:karadere26@yahoo.com)

#### ABSTRACT

**Objective:** Psychotic disorders cause disability, frequent hospitalization, and polypharmacy. The prevalence of lifetime occurrence of all psychotic disorders was found to be 3.06% (1). In order to improve treatment compliance, psychosocial programmes such as cognitive behavioural therapy, psychoeducation, social skills programs, and family interviews are recommended (2). In the Community Mental Health Center (CMHC), it has been found that all of the mental social adjustment studies are useful and necessary (3). This study aimed to examine the effect of CMH services on patients' recurring hospitalizations and polypharmacy.

#### KEYWORDS

Hospitalization; polypharmacy; psychotic disorders; schizophrenia; community mental health centre

**Methods:** The 5-year (2011–2016) data of the CMHC, which serve at Hitit University Çorum Erol Olçok Research and Training Hospital, was retrospectively analysed; 139 patients who were diagnosed with psychotic disorder and getting TRSM services for at least 2 years were included in the study. The number of medications and hospitalizations were compared before and after the CMHC service.

**Results:** The mean age of the cases was  $43.74 \pm 11.90$ ; 64.0% was male. It was found that number of drugs and hospitalizations in the time period before CMHC enrolment was statistically significantly higher than the ones after CMHC enrolment ( $p < 0.05$ ).

**Conclusions:** We found that CMHC reduced the recurrence of illness by increasing compliance with treatment and social adaptation as the number of medications and hospitalization decreased during the follow-up period of CMHC. This finding was consistent with the studies which claim that psychosocial support therapy administered in CMHC would decrease the rates of disease exacerbation and inpatient treatments (4). We believe that further research about the impact of CMHC on disease course and treatment compliance would be useful for the more effective use of these centres.

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[Abstract:0395][Addiction]

## Relationship of smartphone addiction with social network service and alexithymia

Ayhan Algül and İbrahim Gündoğmuş

Sultan Abdulhamid Han Research and Training Hospital, Department of Psychiatry, Istanbul

E-mail address: [dribrahim06@gmail.com](mailto:dribrahim06@gmail.com)

### ABSTRACT

**Objective:** Smartphones which are taking up an indispensable role in daily life have been causing some problems about excessive use of it. The concept of smartphone addiction emerged while research to understand its excessive use and find out smartphone's role in our lives. The aim of this research was to assess whether smartphone addiction was related to social network usage and alexithymia scores among university students.

**Methods:** A group of 935 students aged between 18 and 45 years (509 women, 426 men) were recruited from different universities in Istanbul. Smartphone addictions, alexithymia and social network services were assessed using the Smartphone Addiction Scale Short Version, Toronto Alexithymia Scale-20 Items, and the Sociodemographic form.

**Results:** Results showed that smartphone addiction were related remarkably with alexithymia and social network usage style. In addition, significant correlations exist between alexithymia, and smartphone usage severity.

**Conclusions:** To the best of our knowledge, this is the first study that evaluated interrelationships among alexithymia, social network usage, and smartphone addictions in Turkish sample of university students. The results put forth that have linked smartphone addiction with social network and alexithymia.

### KEYWORDS

Addictions; alexithymia; content; smartphone; social network

[Abstract:0398][Mental retardation]

## Socio-demographic and clinical characteristics of the children evaluated in a child and adolescent psychiatric clinic before cochlear implantation

Fatih Hilmi Cetin<sup>a</sup>, Hasan Ali Guler<sup>a</sup>, Serhat Turkoglu<sup>a</sup> and Bahar Keleş Çolpan<sup>b</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Selçuk University School of Medicine, Konya, Turkey; <sup>b</sup>Department of Otolaryngology, Selçuk University School of Medicine, Konya, Turkey

E-mail address: [dr.hasanaliguler@gmail.com](mailto:dr.hasanaliguler@gmail.com)

#### ABSTRACT

**Objective:** Cochlear implantation is a surgical procedure for the treatment of severe hearing loss. Approximately 9,000 cochlear implant surgeries were performed in Turkey in the last 20 years. There are 188,000 cochlear implant operations worldwide. Developmental delay in children with cochlear implant and hearing loss is related to the duration of pre-operative hearing loss. In this study, we aimed to obtain information about the patients evaluated before the cochlear implant surgery.

**Methods:** Data were collected retrospectively from the files of patients evaluated by Selçuk University Child and Adolescent Psychiatry Clinic before cochlear implant surgeries between January and December 2017. Standard psychological evaluation according to the DSM-5 criteria for each case was performed by a researcher and the consultant specialist. The information from the patients was confirmed by the family interview. Ankara Development Screening Inventory (ADSI) was performed for each case. Socio-demographic information of the cases was collected with the standard data form.

**Results:** Thirty-one cases were evaluated; 51.5% of the cases were male and the mean age was  $49.0 \pm 32.4$  (10, -12.2, min-max) months; 35.5% of the cases had a developmental delay and 93.5% of them had special education with various diagnoses. Interestingly, 41.9% of the cases had parental consanguinity; 96.8% of the cases had low-middle socio-economic status, while all of the families maintained family integrity; 35.5% of the cases were living in the districts and villages, 83.9% of the mothers, and 87.1% of the fathers were elementary and junior high school graduates; 48.4% of the cases had congenital hearing loss. The mean time between hearing loss diagnosis and cochlear implant surgery decision was  $19.0 \pm 14.1$  months. When ADSI subscales were evaluated, 35.5% of cases in terms of general and fine motor development, 29.9% of cases in terms of rough motor development, 32.3% of cases in terms of social development, 51.6% in cases in terms of language development were in the bottom of the 30% line. In the cases with 20% or less of the ADSI subscale language development, the time between diagnosis of hearing loss and decision of implant surgery was 18 months (median); in patients with normal language development, this time was only 11 months (median) and the difference was statistically significant ( $p=0.044$ ).

**Conclusions:** In this study, it was found that about half of the cases were seriously retarded in language development when implant surgery was decided and in other areas of development, about 30% of the cases were seriously retarded. As the time between hearing loss and implant surgery decide increases, the delay in language development is also increasing. Cochlear implant surgery is increasing all over the world and in Turkey. Therefore, more studies are needed to determine the socio-demographic and clinical parameters that predict optimal mental development in patients with cochlear implants.

#### KEYWORDS

Child; child psychiatry; cochlear implantation; developmental delay; hearing loss

[Abstract:0401][Specific learning disabilities]

## Neurocognitive profile of children with neurofibromatosis Type-1 and developmental dyslexia

Yaşar Tanır<sup>a</sup>, Elif Bayram<sup>b</sup>, Funda Seher Özalp Ateş<sup>c</sup>, Serap Tıraş Teber<sup>d</sup> and Birim Günay Kılıç<sup>b</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Kutahya Dumlupınar University Evliya Celebi Training and Research Hospital, Kutahya, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Ankara University School of Medicine, Ankara Turkey; <sup>c</sup>Department of Biostatistics, Ankara University School of Medicine, Ankara, Turkey; <sup>d</sup>Department of Pediatric Neurology, Ankara University School of Medicine, Ankara, Turkey

E-mail address: [yasar\\_tanir@hotmail.com](mailto:yasar_tanir@hotmail.com)

#### ABSTRACT

**Objective:** Neurofibromatosis -1(NF-1) is an autosomal dominant genetic disorder. Children with NF-1 have neuropsychological symptoms including intellectual disability, developmental dyslexia, seizures, and speech articulation problems. A large percentage of children with NF-1 have learning disabilities, often in the realm of reading. Developmental dyslexia (DD) can be conceptualized as a specific learning disorder that is neurobiological in origin and characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities. Previous studies have indicated that children with NF-1 show a neuropsychological profile similar to DD; however, studies typically have not subdivided

#### KEYWORDS

Developmental dyslexia; neurocognitive functioning; neurofibromatosis type-1; phonological dyslexia; psychopathology

children with NF-1 into those who do and do not have DD (NF+DD and NFnoDD, respectively). We aimed to examine the neurocognitive profile of children with NF-1 with and without DD and compared them to children with DD as well as to typically developing readers (Controls).

**Methods:** Study sample consists of children between ages of 7 and 12 and their families, presented to Ankara University School of Medicine Department of Child and Adolescent Psychiatry with diagnosis of DD-only ( $n=30$ ), children with NF-1 ( $n=26$ ). Control group consisted of 30 primary education and junior high school children aged between 7 and 12 years and their families. K-SADS-PL is used for the DSM-IV diagnoses of the patients and the control group. Phonological Awareness Test, Rapid Automatic Naming Test, Word Reading Information Test, Wechsler Intelligence Scale for Children Revised (WISC-R), Stroop TBAG Test, Trail- B Test, Marking Test and Line Direction Identification Test were used to evaluate the cognitive functions of the groups in detail.

**Results:** Children with DD and NF-1 exhibited significant deficits in all neurocognitive measures when compared to the healthy control group. Findings showed that children with NF typ-1+DD performed similarly to children with DD-only on phonological awareness, rapid naming, and single word reading and attention measures; however, children with NF-1+DD displayed pronounced visual spatial deficits as compared to DD-only and Control groups.

**Conclusions:** In the current study, we focused on further understanding the NF-1 cognitive profile by examining the reading, attention, and visuospatial skills of groups of children with NF-1 who were subdivided by whether they did or did not meet criteria for DD. Overall, findings suggest that a more refined classification of children with NF-1 might be helpful for tailoring specialized behavioural therapy interventions.

[Abstract:0405][Forensic Psychiatry]

## Socio-demographic features, sense of self and family environment of child marriage cases

Nagihan Saday Duman<sup>a</sup> and Emel Sarı Gökten<sup>b</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Afyonkarahisar State Hospital, Afyonkarahisar, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, NPIstanbul Brain Hospital of Uskudar University, Istanbul, Turkey

E-mail address: [n\\_saday@hotmail.com](mailto:n_saday@hotmail.com)

### ABSTRACT

**Objective:** Regardless of gender, process of getting married under the age of 18 is described as early-age marriage. According to Turkish Civil Code, an individual is legally permitted to get married if he/she is older than 17 years old. However, courts are also authorized to grant permission for individuals to get married if aged 16 years or above, in the face of extraordinary circumstances and other significant and valid reasons addressed to the court. With this study, we have aimed to evaluate socio-demographic characteristics, sense of self and family environment of children who were referred to our unit by legal authorities to assess and prepare a report "whether the cases would be fit for marriage regarding their physical and psychiatric development at the time of referral."

**Methods:** Medical file records of cases that were referred to our child and adolescent psychiatry unit by legal authorities between the dates of February 2017 and August 2017, with a formal request pending to evaluate these individuals whether they were psychologically fit for getting married or not. Healthy children matched by gender and age who had presented to the paediatrics department of the same hospital between given dates, due to acute and transient health problems such as upper respiratory infection or for routine check-up, were assigned to the control group, upon obtaining their consent, followed by a diagnostic evaluation carried out by a senior child and adolescent psychiatrist. All participants were asked to fill out Sociodemographic Data Form, Rosenberg Self- Esteem Scale and Family Environment Scale.

**Results:** Mean age of girls in the process of early-age marriage was  $16.02 \pm 0.22$ . Statistically significant difference was found between case and controls regarding family structure and number of siblings. It was found that 73.9% of girls in the case group did not resume their education after secondary school, their parents had lower education levels, mean age gap between cases and their partners was found to be  $6.6 \pm 2.23$  and 47.8% had a religious marital ceremony. Case group also scored lower on Rosenberg Self-esteem Scale, indicating lower levels of self-esteem within the case group. As measured by Family Environment Scale, case group scored lower on cohesion-coherence subscale, though higher scores were obtained on control subscale.

### KEYWORDS

Child marriage; early-age marriage; child abuse; self-esteem; family environment



**Conclusions:** Early-age marriages could as well be regarded as another aspect of child sexual abuse. Through letting and actively coordinating early-age marital processes of these children, many rights of these children, most prominently their rights to have an age-appropriate education are violated, in turn, increasing the possibility of these children encountering many adversities identified from the perspective of psychosocial welfare. In order to prevent early-age marriage, causes of this problem need to be addressed in a complementary fashion.

[Abstract:0407][ADHD]

## Serum ghrelin, adrenomedullin, high molecular weight adiponectin, orexin a levels in adult attention-deficit/ hyperactivity disorder (ADHD) patients with first-time diagnosis

Elif Nurgül Sungur<sup>a</sup>, Melike Ceyhan Balcı Şengül<sup>b</sup>, Ayşen Çetin Kardeşler<sup>c</sup> and Yaşar Enli<sup>c</sup>

<sup>a</sup>Department of Psychiatry, Karaman State Hospital, Karaman, Turkey; <sup>b</sup>Psychiatrist, Private Clinic, Denizli, Turkey; <sup>c</sup>Department of Biochemistry, Pamukkale University School of Medicine, Denizli, Turkey

E-mail address: [e.nurgul@hotmail.com](mailto:e.nurgul@hotmail.com)

### ABSTRACT

**Objective:** In this study, it was aimed to examine the role of Ghrelin, Adrenomedullin (ADM), High Molecular Weight Adiponectin (HMWA), and Orexin A (OXA) in the aetiopathogenesis of ADHD.

**Methods:** The study sample consisted of 42 patients with ADHD and 46 healthy individuals between the ages of 18 and 60. A questionnaire form that evaluated physical activity, sleep and feeding behaviour, Adult ADD/ ADHD Diagnostic and Assessment Inventory based on DSM-IV (Turgay), Adults Attention-Deficit/ Hyperactivity Disorder Self-Report Scale (ASRS) were administered after detailed clinical evaluation of all participants. In addition, serum HMWA, ADM, ghrelin, and OXA were measured.

**Results:** As a result of the study among 42 adults diagnosed with ADHD, 19 (45.2%) had attention-deficiency predominant type; 23 (54.8%) were diagnosed with combined type and none was diagnosed with hyperactivity-impulsivity predominant type ADHD. Serum ADM and HMWA levels were significantly higher ( $p=0.0001$ ) in patients with ADHD than in controls. Serum OXA and ghrelin levels were also higher in patients with ADHD but that was not significant. A significant negative correlation ( $r=0.356$ ,  $p=0.021$ ) was found between serum OXA and attention-deficit scores in the Turgay Scale in ADHD patients. OXA levels were significantly lower ( $p=0.005$ ) in the group with combined type ADHD than the other groups and significantly higher ( $p=0.013$ ) in ADHD patients with attention deficit than in the combined type group. Compared to controls, ADHD group has reported significantly higher rates of irregular sleep ( $p=0.000$ ), being more sleepy and/or drowsy during daytime ( $p=0.001$ ), much more energy drink consumption ( $p=0.006$ ).

**Conclusions:** Due to well-known protective action of serum ADM and adiponectin against oxidative stress and neuroprotective characteristics, we have hypothesized that significantly higher levels of ADM and HMWA measured in our ADHD group compared to controls, could indicate protective mechanisms against oxidative stress might be working among these individuals. Consistent with the findings of the study that suggested hypoactive orexin neurons located within perifornical and dorsomedial hypothalamic regions that are well known to have an important role in control of vigilance and being awake, as well as with the relevant literature that states attention deficits in the face of decreased orexin levels, in predominantly attention-deficit type of ADHD, we have found much more irregularity among sleep cycles of individuals with ADHD, with more sleepiness during daytime and/or drowsiness, significant increase in the consumption of energy drinks, presence of a negative correlation between serum OXA levels and Turgay ADHD scale attention deficiency scores, as well as though statistically insignificant when compared to other groups, higher levels of OXA measured in attention-deficiency predominant type ADHD might indicate possible compensatory reaction towards these findings in our study. Consistent with the literature finding that postulated possible causal relation between increased motor activity in ADHD and hyperactivation of orexin system located within the lateral hypothalamus, lower levels of serum OXA in combined type ADHD cases when compared to other groups might have been due to above-mentioned compensatory systems. Future studies that would preferably be carried out with larger samples and treatment responses would provide important findings.

### KEYWORDS

ADHD; ADM; Ghrelin; HMWA; OXA

[Abstract:0410][Other]

## The anxiety and depression levels, the quality of life and influencing factors in children and adolescents who have a parent with cancer

Neslihan Kurtul<sup>a</sup> and Hatice Altun<sup>b</sup>

<sup>a</sup>Department of Radiation Oncology, Kahramanmaraş Sutcu Imam University School of Medicine, Kahramanmaraş, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Kahramanmaraş Sutcu Imam University School of Medicine, Kahramanmaraş, Turkey

E-mail address: [drhaticealtun@gmail.com](mailto:drhaticealtun@gmail.com)

### ABSTRACT

**Objective:** Children and adolescents face substantial changes to their routine and role functioning when a parent is diagnosed with cancer. They may take on additional responsibilities while their parent is undergoing treatment, and receive less emotional and practical support from both parents during this time. Although the emotional impact of cancer on families is clearly documented in relation to partners and adult children, the evidence for school-aged children is less clear. The aim of our study was to evaluate the anxiety and depression levels and the quality of life and influencing factors in children of patients with cancer.

**Methods:** The participants included 50 children and adolescents of the cancer patients who were treated at the Department of Radiation Oncology of Kahramanmaraş Sutcu Imam University School of Medicine and 50 healthy adolescents between the ages of 8 and 17. The Pediatric Quality of Life Inventory (PedsQL) was used to measure the children's quality of life. Depression and anxiety levels were evaluated with Children's Depression Inventory (CDI) and the State-Trait Anxiety Inventory (STAI), respectively.

**Results:** There were no statistically significant differences between the two groups in terms of age and gender ( $p > 0.05$ ). It was determined that compared to healthy controls, the depression and anxiety scores were higher and the quality of life was impaired in children and adolescents of the cancer patients ( $p < 0.05$ ). There were negative correlations between the depression and anxiety levels and the all sub-scale and total scores of quality of life ( $p < 0.05$ ). All the children and adolescents of the cancer patients reported on the socio-demographic form related to the parent's disease that they had experienced one or more problems such as take on additional responsibilities and lifestyle changes.

**Conclusions:** The results of this study indicated that the children and adolescents of the cancer patients had a higher depression and anxiety levels and impaired the quality of life. Children and adolescents who have a parent with cancer are at increased risk of poor psychosocial outcomes including internalizing problems such as stress, anxiety and depression and difficulties related to school/education, leisure, family functioning and relationships. Our study results support these findings. These results suggest that it is important to provide psychological support to the children and adolescent of cancer patients

### KEYWORDS

Anxiety; cancer; children and adolescents; depression; parent; quality of life

[Abstract:0412][Autism]

## Clinical features and autoimmune variables associated with regression in autism spectrum disorders

Cihan Aslan<sup>a</sup>, Bahadır Konuşkan<sup>b</sup>, Burçin Şener<sup>c</sup>, Banu Anlar<sup>b</sup> and Fatih Ünal<sup>d</sup>

<sup>a</sup>Kırıkkale Yüksek İhtisas State Hospital, Department of Child and Adolescent Psychiatry, Kırıkkale, Turkey; <sup>b</sup>Hacettepe University School of Medicine, Department of Pediatric Neurology, Ankara, Turkey; <sup>c</sup>Hacettepe University School of Medicine, Department of Medical Microbiology, Ankara, Turkey; <sup>d</sup>Hacettepe University School of Medicine, Department of Child and Adolescent Psychiatry, Ankara, Turkey

E-mail address: [cihanaslan@yahoo.com](mailto:cihanaslan@yahoo.com)

### ABSTRACT

**Objective:** This cross-sectional case-control study aimed to examine the differences between ASD (Autism Spectrum Disorders) cases with regression and without regression by assessing autoimmune markers, clinical manifestations, and regression-specific features.

**Methods:** This study included a total of 24 ASD cases with regression aged between 2 and 6 years and 26 age-matched controls including non-regressive ASD patients. Following obtaining the informed consents, all participants were assessed according to DSM-5 criteria, Childhood Autism Rating Scale (CARS) and Ankara Developmental Screening Test (ADST). Aberrant Behaviour Checklist (AuBC) and Autism Behaviour Checklist (ABC) were completed

### KEYWORDS

Autism spectrum disorders; autoimmunity; encephalitis; neuroimmunology; regression

by the parents. Autoimmune encephalitis panel including neuronal surface autoantibodies (Anti-NMDA, Anti-CASPR2, Anti-LG1, Anti-Glutamate type AMPA 1–2, Anti GABA B, Anti-DPPX) and Anti-GAD antibody were assayed in serum samples.

**Results:** There were no significant differences in terms of CARS, ADST, AuBC, and ABC scores between the patients and controls. Early developmental milestones (i.e. language skills, potty training, walking etc.) were attained earlier in regressive group. Anti-GAD antibodies were detected in the serum of 5 (20.8%) ASD patients with regression vs. none of the controls ( $p < 0.05$ ). There was no seropositivity of neuronal surface autoantibodies in any participant. A significant direct relationship was found between the levels of language skills attained before the regression and regained after the regression ( $p < 0.05$ ). Gradual onset pattern of regression was shown to be associated with disruption in most of the behavioural domains, especially social and self-help skills.

**Conclusions:** This study provided novel findings related to the phenomenology of regression and we postulated that autoimmunity might have had a specific contribution to the aetiology of ASD.

[Abstract:0415][Sleep disorders]

## The effects of selective serotonin reuptake inhibitors (SSRIs) and serotonin noradrenaline reuptake inhibitors (SNRIs) on sleep in depressive disorder patients

Bülent Devrim Akçay, Güray Koç and Sinan Yetkin

Gülhane Research and Training Hospital, Psychiatry Clinic, Sleep Research Center, Ankara, Turkey

E-mail address: [drbulentakay@gmail.com](mailto:drbulentakay@gmail.com)

### ABSTRACT

**Objective:** It was aimed to determine whether the effects of selective serotonin reuptake inhibitors (SSRIs) and serotonin-noradrenaline reuptake inhibitors (SNRIs) on sleep effects in depressive disorder patients.

**Methods:** The study was conducted between January 2014 and October 2015 at Ankara Gülhane Research and Training Hospital's Sleep Research Center. The patients admitted to our hospital with complaints of insomnia, clinically assessed and diagnosed with insomnia and polysomnographic sleep-recordings performed, were included the study. Thirteen patients were treated as single medication treatment by SNRIs group and 26 patients as the SSRIs group. Retrospective data of sleep records of these 39 patients were evaluated.

**Result:** There were no statistically significant differences between the groups in terms of Epworth Sleepiness Scale, sleep efficiency, total sleep time, wake after sleep onset, sleep latency, REM latency, the percentage of Stage N1, Stage N2, Stage N3 REM, REM episode, and wakefulness ( $p < 0.05$ ).

**Conclusions:** Normalization of insomnia, a core symptom of depression, is necessary for the amelioration of the clinical course of the major depressive disorder. Therefore, the effects of selected antidepressant drugs on sleep should be well examined in patients with a diagnosis of depressive disorder. In our study, there were no significant differences in the effects of SSRIs and SNRIs antidepressants on sleep parameters of patients with depressive disorder and insomnia.

### KEYWORDS

Selective Serotonin Reuptake Inhibitors; Serotonin Noradrenaline Reuptake Inhibitors; major depressive disorder; sleep; insomnia

**Table 1.** Comparison of study groups in terms of sleep parameters.

Parameters	SSRIs Group (n = 26)	SNRIs Group (n = 13)	F	P
	Mean $\pm$ SD	Mean $\pm$ SD		
Epworth Sleepiness Scale	9.50 $\pm$ 5.14	11.00 $\pm$ 4.38	0.774	0.374
Sleep Efficiency	82.59 $\pm$ 8.72	81.84 $\pm$ 12.87	0.394	0.831
Total Sleep Time	376.99 $\pm$ 45.54	369.77 $\pm$ 60.64	0.469	0.679
Wakefulness after sleep onset (WASO)	60.54 $\pm$ 37.90	61.47 $\pm$ 51.24	0.000	0.949
Sleep Latency	31.81 $\pm$ 22.17	42.81 $\pm$ 40.90	2.807	0.281
REM Latency	173.19 $\pm$ 72.84	149.88 $\pm$ 80.45	0.073	0.369
Stage 1 Sleep (N1)	22.84 $\pm$ 16.62	22.55 $\pm$ 12.58	1.199	0.956
Stage 2 Sleep (N2)	49.84 $\pm$ 14.86	51.15 $\pm$ 11.48	0.342	0.781
Stage 3 Sleep (N3)	14.38 $\pm$ 6.54	13.09 $\pm$ 7.10	0.398	0.576
REM Sleep	12.96 $\pm$ 5.78	13.22 $\pm$ 5.88	0.009	0.898
REM Episode	2.50 $\pm$ 1.03	3.15 $\pm$ 1.28	1.979	0.093
Wakefulness	22.12 $\pm$ 13.09	26.62 $\pm$ 15.36	1.097	0.346

[Abstract:0424][Other]

## Adaptation and reliability of structured clinical interview for DSM-5 (SCID-5)

Serkan Bayad, Müge Elbir, Özge Alp Topbaş, Tuğba Kocabaş and Ömer Aydemir

Department of Psychiatry, Manisa Celal Bayar University School of Medicine, Manisa, Turkey

E-mail address: [soaydemir@yahoo.com](mailto:soaydemir@yahoo.com)

### ABSTRACT

**Objective:** Structured interviews in psychiatry serve to improve diagnostic precision, to provide comparability in studies, and to prevent misdiagnosis. In previous versions of structured interviews for DSM, there were missing diagnostic categories. In DSM-5, the diagnostic categories are increased as well as they are categorized de novo. In accordance, clinician version of Structured Clinical Interview for DSM-5 (SCID-5) contains 32 diagnostic entities with detailed criteria in addition to 16 diagnostic entities with screening questions. It consists of 10 modules: mood episodes, psychotic symptoms, psychotic disorders, mood disorders, substance-use disorders, anxiety disorders, obsessive-compulsive and related disorders and PTSD, attention-deficit/hyperactivity disorder, screening for other disorders, and adjustment disorders. In this study, we aimed to perform the adaptation of SCID-5 into Turkish and to demonstrate its reliability.

**Methods:** Both in the inpatient and in the outpatient units of department of psychiatry of Manisa Celal Bayar University, 80 patients were included in the study. Patients who are unwilling to participate, who do not cooperate with a structured interview due to psychomotor agitation or cognitive impairment, and who are younger than 18 years were excluded. The clinician version of SCID-5 was translated by two psychiatrists and were controlled and approved by five psychiatrists for face validity. Then, the text was administered to a group of patients in order to test the intelligibility of the questions. Before the study, all study members studied the SCID-5 text together carefully. During the study, while study member carried out the interview, the other was observer in order to test the diagnostic agreement and consistency. In the statistical analysis, kappa coefficient for inter-rater reliability was calculated for every diagnostic category, where 1.0 shows perfect agreement.

**Results:** The mean age of the study group was  $35.8 \pm 13.6$  years, and 62.5% were female. Whereas 7.5% of the group did not receive any formal education, 33.8% had primary education and 36.8% had university education. In terms of perfect agreement where kappa coefficient is 1.0, interviewers had perfect agreement in schizophrenia, bipolar disorder type 1, schizoaffective disorder, alcohol-use disorder, and social anxiety disorder. For major depressive disorder, the kappa coefficient was 0.89, for panic disorder, it was 0.73, for generalized anxiety disorder, it was 0.83, for OCD, it was 0.84, and for PTSD, it was 0.79.

**Conclusions:** In this study, the adaptation and reliability of SCID-5 were demonstrated. Similar to the previous versions such as SCID-P (for DSM-III-R) and SCID-CV (for DSM-IV), the reliability coefficients were satisfactorily high, and all were statistically significant ( $p < 0.0001$ ). The Turkish version of SCID-5 can be used both in daily clinical practice and in research studies reliably.

### KEYWORDS

SCID-5; DSM-5; structured interview; adaptation; reliability

[Abstract:0441][OCD]

## Influence of obsessive-compulsive disorder on implicit memory performance and cognitive process

Emine Füsün Akyüz Çim<sup>a</sup>, Adem Aydın<sup>b</sup> and Abdullah Atli<sup>c</sup>

<sup>a</sup>Department of Psychiatry, Yuzuncu Yıl University School of Medicine, Van, Turkey; <sup>b</sup>Department of Psychiatry, Necmettin Erbakan University School of Medicine, Konya, Turkey; <sup>c</sup>Department of Psychiatry, Dicle University School of Medicine, Diyarbakir, Turkey

E-mail address: [drfusunakyuz@hotmail.com](mailto:drfusunakyuz@hotmail.com)

### ABSTRACT

**Objective:** In preconscious processing, experience and learning reflect attention and wakefulness and well-learned responses are processed automatically (1). In Cognitive Psychology, however, these processes are collectively termed "implicit learning". Literature reviews indicate that there are a limited number of studies reporting on implicit memory performance in OCD patients. In this study, we aimed to investigate implicit memory performance in OCD patients in line with the severity of the disease and the parameters used for cognitive evaluation.

### KEYWORDS

Obsessive-compulsive disorder; implicit memory performance; thought-action fusion; obsessive beliefs; meta-cognition

**Methods:** The study included a patient group comprising 30 patients who were treated and followed up at Yuzuncu Yil University Medical Research Hospital Psychiatry Clinic and a control group of 40 healthy subjects. The patients were administered demographic information form, Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), Dimensional Yale-Brown Obsessive-Compulsive Scale (DY-BOCS), Metacognitions Questionnaire (MCQ), Thought-Action Fusion Scale (TAFS), Obsessive Beliefs Questionnaire-44 (OBQ-44), and Word Stem Completion Test (WSCT), whereas the healthy subjects were administered demographic information form and WSCT only.

**Results:** No significant difference was found between the two groups in terms of mean age ( $t(68)=-0.307$ ;  $p>0.05$ ) (Tables 1,2). Mean WSCT score was  $7.63 \pm 3.05$  in the OCD group and  $6.30 \pm 2.09$  in the control group; the scores in the OCD group were significantly higher than those in the control group ( $t(68) = 2.167$ ;  $p < 0.05$ ). WSCT scores established a strong inverse correlation with the severity of OCD. Similarly, WSCT scores established moderate-to-strong correlations with OBQ-44, MCQ, and TAFS scores. The evaluation of implicit memory performance via WSCT indicated that WSCT performance was higher in the OCD patients compared to healthy controls. It was also revealed that WSCT performance decreased as the parameters indicating the severity of the disease (Y-BOCS and DY-BOCS) and the parameters used for evaluating cognitive performance (OBQ-44, TAFS, MCQ) increased and TAFS had the highest effect on WSCT among all the parameters evaluated in the study.

**Conclusions:** In this present study, although age margins were not wide, the age-related effect on KKT was found to be statistically insignificant when evaluated in terms of both control and healthy subjects in accordance with the literature information (2). The results also indicated that the WSCT scores were higher in the OCD patients compared to the healthy controls. Multiple regression analysis revealed that the WSCT scores in the OCD group decreased as the Y-BOCS and DY-BOCS scores increased, suggesting that there is an inverse correlation between the impact on the memory functions and the severity of the disease. This correlation could be explained by the fact that since OCD is characterized by impaired cognitive flexibility in attention and perception, it is likely to have adverse effects on implicit memory performance. Literature shows that the studies reporting on the relationship between OCD and implicit memory performance have reported contradictory findings. This contradiction could be related to the variation in the drugs used by the patients evaluated in each study (3). In our study, no significant effect was observed among our patients in terms of drug use since the patient group was heterogeneous with regard to drug use. The results also indicated that implicit memory function was preserved up to a certain degree of the severity of OCD. This finding could be attributed to the heterogeneity of the patient group with regard to drug use and/or to the compensatory mechanisms attempting to reduce explicit memory deficits.

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[Abstract:0442][Mood disorders]

## The comparison of socio-demographic features and quality of life in patients with bipolar disorder treatment responders and treatment non-responders

Abdullah Atli<sup>a</sup>, Pelin Avcu Çelik<sup>b</sup> and Aslıhan Okan İbiloğlu<sup>a</sup>

<sup>a</sup>Department of Psychiatry, Dicle University School of Medicine, Diyarbakır, Turkey; <sup>b</sup>Department of Psychiatry, İskenderun State Hospital, Hatay, Turkey

E-mail address: [abdullahatli@yandex.com](mailto:abdullahatli@yandex.com)

### ABSTRACT

**Objective:** The aim of this study was to determine medical treatment response and the factors that affect medical treatment response and compare quality of life in the patients with bipolar disorder.

**Methods:** Patients with maintenance treatment for at least 1 year, patients with treatment at least 6 months for acute mania attack, and patients with treatment at least 12 weeks for acute depressive attack were included in the study. As the treatment condition, patient's last

### KEYWORDS

Bipolar disorder; acute manic episode; acute depressive episode; treatment response; quality of life; socio-demographic features



medication should include either a mood stabilizer or an antipsychotic drug; 150 patients who were followed-up as outpatient or hospitalized were evaluated cross-sectionally and included in the study and grouped as euthymic patients and patients in period attack; 59 of the patients (39.4%) had good response to the treatment and 91 (60.6%) had insufficient response. Totally 4 groups were constructed; Group 1: Euthymic patients with good treatment response, Group 2: Patients with insufficient response to maintain treatment, Group 3: Patients in acute mania period with insufficient response to treatment, and Group 4: Patients in acute depressive period with insufficient response to treatment. The number of patients was 59, 42, 32, and 17, respectively. Consent Form, Sociodemographic Data Form, Young Mania Rating Scale, Hamilton Depression Rating Scale, Hamilton Anxiety Scale, Clinical Global Impression Scale, Sheehan Disability Scale, and WHO Life Quality Scale Short Form (WHOQOL-BREF) were administered to the patients. SPSS 18.0 statistical package program was used in data analysis.

**Results:** It is found that psychotic symptoms compatible with mood status were more common in patients with good response to the treatment. History of starting to treatment lately, many medication trial, no adaptation to medication, and leaving medication were more common in patients with insufficient response to treatment, and there was a significant difference. Evaluating drug using status, in patients with insufficient response to treatment, especially in patients with acute mania period, antipsychotic drug usage was more common. In patients with insufficient response to treatment, especially in patients with acute depression period, antidepressant, benzodiazepine usage and ECT treatment ratio were higher and there was a statistically significant difference. Among groups 2, 3 and 4, in patients with insufficient response to treatment, there was more additional diagnosis. According to DSM-5 criteria as additional diagnosis, generalized anxiety disorder, panic disorder, social anxiety disorder, obsessive-compulsive disorder, post-traumatic stress disorder and alcohol- and drug-use disorder were found and additional diagnoses were more common in patients with insufficient response to treatment. Among all patient groups, YMRS scores, HDRS scores, HAS total scores, HAS psychic and somatic anxiety scores, CGI-S scores, SDS work-social-family scores were significantly higher in patients with insufficient response to treatment; and WHOQOL-BREF total scores, WHOQOL-BREF general-physical-spiritual-social-environmental area scores were less; and in national environment area, scores were higher.

**Conclusions:** In our study, history of alcohol-drug usage, insufficient family support, existence of additional diagnosis, episode type of first mood disorder, more total number of mood disorder episode, mismatch of psychotic features with mood status, seasonality, lack of insight, being long time between symptoms and diagnosis, drug incompatibility, and leaving medication were found to be the predictors of unresponsiveness.

[Abstract:0466][Other]

## Parental attitudes and family adjustment in paediatric trichotillomania: a case-control study

Deniz Argüz Çıldır<sup>a</sup>, Aylin Özbek<sup>b</sup> and Aybuke Tuğçe Mustan<sup>c</sup>

<sup>a</sup>Department of Child And Adolescent Psychiatry, Tepecik Training and Research Hospital, Izmir, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Dokuz Eylül University School of Medicine, Izmir, Turkey; <sup>c</sup>Department of Child And Adolescent Psychiatry, Dr. Ersin Arslan Training and Research Hospital, Gaziantep, Turkey

E-mail address: [deniz.argz@yahoo.com](mailto:deniz.argz@yahoo.com)

### ABSTRACT

**Objective:** This study aims to explore family characteristics, parental attitudes, and family adjustment of paediatric trichotillomania in comparison with healthy controls.

**Methods:** Participants were 22 cases of trichotillomania and 23 healthy controls aged between 2 and 12 years. Participants were interviewed for collection of socio-demographic data and determination of the presence of comorbid disorders in the case group, and exclusion of any psychiatric disorders in the control group. Severity of trichotillomania disease was assessed by the Clinical Global Impression Scale Severity Index (CGI-SI). Parental attitude and parent-child adjustment were examined by the Child Adjustment and Parent Efficacy Scale (CAPES) and Parental and Family Adjustment Scales (PAFAS).

**Results:** Along with socio-demographic data form, parental relationship and family structure of the parents in case group were statistically different from the control group ( $p = 0.022$ ;  $p = 0.022$ , respectively). Parents of the case group have more difficulties in PAFAS subscales in terms of parental consistency, coercive parenting, parent-child relationship, and emotional adjustment ( $p = 0.046$ ;  $p = 0.001$ ;  $p = 0.014$ ;  $p = 0.039$ , respectively). While the case group had more difficulties in the emotional and behavioural adjustment than the control group of children in the CAPES subscales, the parental self-efficacy of the control group was better than cases ( $p = 0.003$ ;  $p = 0.003$ ;  $p = 0.010$ , respectively).

### KEYWORDS

Family; family adjustment; family characteristics; parental attitudes; trichotillomania

**Conclusions:** There has been limited study about the association between trichotillomania and family functioning. Family functioning should be considered carefully in cases of trichotillomania.

[Abstract:0468][Neuroscience: neuroimaging-genetics-biomarkers]

## Optic coherence tomography findings in conversion disorder: are there any differences in the aetiopathogenesis of subtypes?

Ayşe Sevgi Karadağ<sup>a</sup>, Aysun Kalenderoğlu<sup>b</sup>, Mehmet Hamdi Örum<sup>b</sup> and Murat Eren Özen<sup>c</sup>

<sup>a</sup>Department of Ophthalmology, Adiyaman University School of Medicine, Adiyaman, Turkey; <sup>b</sup>Department of Psychiatry, Adiyaman University School of Medicine, Adiyaman, Turkey; <sup>c</sup>Psychiatry Clinic, Private Adana Hospital, Adana, Turkey

E-mail address: [mhorum@hotmail.com](mailto:mhorum@hotmail.com)

### ABSTRACT

**Objective:** Optic coherence tomography (OCT) is a contactless and fast neuroimaging method. Previous Studies have observed thinning of the ganglion cell layer (GCL) and inner plexiform layer (IPL) in many neurodegenerative diseases, and researchers have suggested that correlations exist between the thinning of the GCL, IPL, and the neurodegeneration detected with other imaging methods or the severity of illness. More recently, OCT has been used in patients with bipolar disorder, schizophrenia, and major depressive disorder. The aim of this study was to compare the GCL volume, IPL, and the retinal nerve fibre layer (RNFL) thickness in patients with conversion disorder (CD) and controls using OCT to demonstrate neurodegeneration in CD.

**Methods:** This study included 50 CD [19 Motor-CD patients (M-CD), 20 Somato-Sensorial-CD patients (SS-CD), and 11 Somato-Motor-CD patients (SM-CD)] patients who were being followed by the Adiyaman University Medical School's Department of Psychiatry and 50 healthy volunteers as control group. OCT measurements were performed for both groups. The RNFL, IPL, choroid thickness, and GCL volumes were measured and recorded automatically by a spectral OCT device.

**Results:** No differences in socio-demographics were found between groups except for occupation and education. There was no difference in the RNFL layers between the CD group and the control group ( $p > 0.05$ ). The left and right choroid layer thickness acquired from three regions of choroid layer was higher in patients compared with controls ( $p < 0.05$ ). The GCL and IPL volumes were also significantly lower in the patient group ( $p < 0.05$ ).

**Conclusions:** Somas of the ganglion cells form GCL, dendrites of ganglion cells form IPL, and their axons form RNFL. GCL and IPL findings of our study suggest that neurodegeneration occurs during the course of CD, especially in subtype-involved motor component. Axonal degeneration can be responsible for decreases in the grey matter volume and also the thinning of the RNFL. The second remarkable finding of our study is differences between subtypes of CD in terms of GCL and IPL. Neuronal degeneration in M-CD and SM-CD patients was found to be significantly higher than the control group, but no neuronal loss in SS-CD was found. This finding suggests that a more destructive aetiopathogenesis is responsible for neuronal damage in the motor component dominant CD. The third important finding of our study is changes in choroid thickness in CD patients. The choroid may be used to determine active stage of the disease and to monitor inflammatory process like other inflammation markers used in systemic inflammatory diseases. Major limitation of this study is its cross-sectional design. Another limitation of our study is lack of control measurements to increase validity and reliability of OCT to detect inflammation and degeneration. Direct effects of psychotropic medications on retina cannot be excluded and this should be assessed in further studies.

### KEYWORDS

Choroid; conversion disorder; ganglion cell layer; nerve degeneration; optic coherence tomography

[Abstract:0469][Neuroscience: neuroimaging-genetics-biomarkers]

## Comparison of optic coherence tomography results of patients with obsessive-compulsive disorder with controls: findings in favour of neurodegeneration

Oğuzhan Bekir Eğilmez<sup>a</sup>, Aysun Kalenderoğlu<sup>a</sup>, Ayşe Sevgi Karadağ<sup>b</sup>, Mehmet Hamdi Örum<sup>a</sup> and Murat Eren Özen<sup>c</sup>

<sup>a</sup>Department of Psychiatry, School of Medicine, Adiyaman University, Adiyaman, Turkey; <sup>b</sup>Department of Ophthalmology, Adiyaman University School of Medicine, Adiyaman, Turkey; <sup>c</sup>Psychiatry Clinic, Private Adana Hospital, Adana, Turkey

E-mail address: [mhorum@hotmail.com](mailto:mhorum@hotmail.com)

**ABSTRACT**

**Objective:** Optic Coherence Tomography (OCT) is a contactless and fast neuroimaging method. Previous studies have observed thinning of the ganglion cell layer (GCL) and inner plexiform layer (IPL) in many neurodegenerative diseases. The aim of this study was to compare the GCL, and IPL volumes and retinal nerve fibre layer (RNFL) thickness in obsessive-compulsive patients and controls using OCT to demonstrate neurodegeneration in obsessive-compulsive disorder (OCD).

**Methods:** This study involved 50 OCD patients who were being followed by the Psychiatry Department of Adiyaman University Medical School and 50 healthy volunteers as control. OCT measurements were performed for both groups. The RNFL, IPL thickness, and GCL volumes were measured and recorded automatically by a spectral OCT device.

**Results:** The RNFL thickness was lower in patients compared with controls at all measured regions, and this decreases statistically significantly in a few regions (left Temporo-Superior, left mean) ( $p < 0.05$ ). The left and right choroid layer thickness acquired from three regions of choroid layer was higher in patients compared with controls ( $p < 0.05$ ). The GCL and IPL volumes were also significantly lower in the patient group ( $p < 0.05$ ). There was a significant negative correlation between the disease duration and OCT results.

**Conclusions:** The basic finding in our study is the detection of a significant decrease in GCL and IPL thicknesses when patients diagnosed with OCD were compared with the healthy group. As a result, the decrease in IPL formed by the dendritic structure and GCL constituting the retinal neural structure soma is a demonstrator of a neuron loss. Another finding in our study was the fact that although there was a decrease in RNFL layer compared to the control group, this decrease was not significant when compared with the control group. It is known that pro-inflammatory cytokines play a role in OCD pathogenesis. This inflammatory phase in which cytokines play a role may have caused the delay of axonal degeneration by causing an increase in retinal blood flow and thus improving the retinal structure nourishment. So, RNFL sub layers may be measured as a thicker layer than normal due to inflammation. According to our findings, it was detected that choroid layer thickness showing retinal blood flow increases significantly in patients diagnosed with OCD compared to the control group. As a result, we detected that neurodegeneration occurred in certain layers of retinal neural network which is an extension of the brain in patients diagnosed with OCD. In near future, OCT can be used as a new method in OCD patients for degeneration follow-up or for observing the progression of the disease. Cross-sectional design of our study limits conclusions about progressive degeneration during the course of OCD. Lack of a control neuroimaging method like magnetic resonance imaging makes it hard to draw firm conclusions from our results.

**KEYWORDS**

Ganglion cell layer; inner plexiform layer; nerve degeneration; obsessive-compulsive disorder; optic coherence tomography; retinal nerve fibre layer

[Abstract:0471][ADHD]

## Heavy metal levels and investigations of their effects on thiol/disulphide status in children with attention-deficit/ hyperactivity disorder

Dilek Bingöl Aydın<sup>a</sup>, Bahri Elmas<sup>a</sup>, Serhat Nasiroğlu<sup>b</sup>, Engin Aydın<sup>a</sup>, Öner Özdemir<sup>c</sup> and Özcan Erel<sup>d</sup>

<sup>a</sup>Department of Pediatrics, Sakarya University School of Medicine, Sakarya, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Sakarya University School of Medicine, Sakarya, Turkey; <sup>c</sup>Department of Pediatric Allergy and Immunology, Sakarya University School of Medicine, Sakarya, Turkey; <sup>d</sup>Department of Biochemistry, Yıldırım Beyazıt University School of Medicine, Ankara, Turkey

E-mail address: [serhatnasiroglu@gmail.com](mailto:serhatnasiroglu@gmail.com)

**ABSTRACT**

**Objective:** Attention-Deficit/ Hyperactivity Disorder (ADHD) is one of the most common childhood psychiatric disorders. The aetiology of ADHD is multifactorial. Some heavy metals and oxidant/antioxidant imbalance are some of the controversial factors in aetiology. In this present study, we aimed to examine the heavy metal levels and thiol/disulphide status and the effect of heavy metals on thiol/disulphide homeostasis in children and adolescents with ADHD.

**Methods:** This study included a total of 35 children aged 6–18 years who were newly diagnosed with ADHD and age- and gender-matched 31 healthy children. Parents or guardians were administered a semi-structured questionnaire including demographic data, pre-postnatal smoking exposure, and breastfeeding history. Heavy metals including lead (Pb), mercury (Hg), and cadmium (Cd) levels were analysed. Serum total thiol, native thiol, disulphide levels, and their ratios were analysed with a newly developed automated spectrophotometric method.

**Results:** This study included 9 girls and 57 boys, total of 66 participants, mean age was  $10.8 \pm 2.8$  years. Cigarette smoking during pregnancy was significantly higher in the ADHD group ( $p =$

**KEYWORDS**

Attention-deficit/ hyperactivity disorder; heavy metals; oxidant/antioxidant status; prenatal smoking; thiol; disulphide

0.030). The native and total thiol levels of the patients with ADHD were significantly higher than the control group ( $p < 0.001$ ). The Hg levels of the patients were significantly higher than the control group ( $p = 0.002$ ). Pb levels were not different between ADHD and control groups while Cd levels were significantly higher in the control group ( $p < 0.001$ ).

**Conclusions:** Maternal smoking during pregnancy and increase in blood Hg levels might be risk factors for ADHD. In ADHD patients in response to oxidation, antioxidant levels might increase. We could not find any relationship between thiol/disulphide levels and heavy metal levels in patients with ADHD.

[Abstract:0476][ADHD]

## Assessment of smokeless tobacco (Maras powder) use and its relation to the emotional behavioural problems in children and adolescents with attention-deficit/ hyperactivity disorder

Hatice Altun

Department of Child and Adolescent Psychiatry, Kahramanmaras Sutcu Imam University School of Medicine, Kahramanmaras, Turkey

E-mail address: [drhaticealtun@gmail.com](mailto:drhaticealtun@gmail.com)

### ABSTRACT

**Objective:** Maras powder, a kind of smokeless tobacco, is commonly used in the South and Southeastern regions of Turkey, especially around Kahramanmaras and Gaziantep cities. In Kahramanmaras city, 16.8% of total population (25.1% males and 1.4% females) and 9.4% of the individuals with chronic diseases (16.0% males and 1.1% females) consume Maras powder. There are only a few studies investigating the association between smokeless tobacco use and psychiatric disorders. Only one study reported that the symptoms of adult attention-deficit/ hyperactivity disorder (ADHD) were higher in Maras powder and smoking users. However, to our knowledge, no studies have been conducted regarding Maras powder use in children and adolescent with ADHD. The aim of this study was to determine the use of Maras powder among children and adolescents with ADHD and healthy controls and its relationship to the emotional behavioural problems.

**Methods:** The study group consisted of 40 adolescent with ADHD aged 12–17 years according to DSM-5 and 40 healthy children as controls. A socio-demographic form, questionnaire form evaluating the frequency of use of Maras powder, its cause of use and the level of knowledge about Maras powder, Disruptive Behaviour Disorders Symptom Screening Scale and the Strengths and Difficulties Questionnaire (SDQ) were administered to the participants.

**Results:** There were no statistically significant differences between the two groups in terms of age and gender ( $p > 0.05$ ). The rates of Maras powder use in the patient group were higher than those in the control group. The rates of cigarette use in the patient group were also higher than those in the control group; 16 years and above males were found to use Maras powder at a higher rate in both groups. It was determined that compared to healthy controls, the emotional symptoms, conduct problem, hyperactivity scale, peer problem, and total difficulties scores were statistically significantly higher and prosocial scale scores were lower in children and adolescents with ADHD ( $p < 0.05$ ). Also the conduct problem and hyperactivity subscale scores of SDQ were statistically significantly higher and prosocial scale scores were lower in Maras powder use group.

**Results:** The results of this study showed that Maras powder use in ADHD group was higher than those in the controls and that the children and adolescents with the use of Maras powder had higher level of the conduct problem and hyperactivity subscale scores of SDQ and less prosocial subscale scores. Unfortunately, the sale of Maras powder in our region is not supervised. Easy access to Maras powder is a risk for all adolescents, especially those with ADHD, in terms of substance use. Especially children with ADHD and their families should be informed about the use of Maras powder and its risks and damages. Further investigations are needed with a large sample size on Maras powder usage in ADHD.

### KEYWORDS

Children; adolescent; attention-deficit/ hyperactivity disorder; emotional; behavioural

[Abstract:0485][Other]

## Analysis of demographic and clinical characteristics of patients with dissociative identity disorder (DID)

Ülker Fedai<sup>a</sup> and Mehmet Asoğlu<sup>b</sup>

<sup>a</sup>Department of Psychiatry, Balıklıgöl State Hospital, Sanliurfa, Turkey; <sup>b</sup>Department of Psychiatry, Harran University School of Medicine, Sanliurfa, Turkey

E-mail address: [mehmetasoglu@gmail.com](mailto:mehmetasoglu@gmail.com)

#### ABSTRACT

**Objective:** The prevalence of DID appears highest in emergency psychiatric settings and affects approximately 1% of the general population [1]. Although this is the prevalence rate, this disorder is rarely diagnosed. The aim of this study was to determine the socio-demographic features, complaints, aetiological traumas, comorbid psychiatric disorders, previous psychiatric applications of the patients who had the diagnosis of Dissociative Identity Disorders and increase the awareness and recognition of Dissociative Identity Disorders.

**Methods:** Seventy patients who had the diagnosis of Dissociative Identity Disorders due to DSM-5 criteria in Harran University School of Medicine's Department of Psychiatry Outpatient Clinic were included in our study; 47 (67.1%) of patients were female, 23 (22.9%) were male. The patients completed the Dissociative Experiences Scale, Dissociation Scale, and the Sociodemographic Data Form.

**Results:** Forty-seven (67.1%) of 70 patients were female and 23 (33.9%) were male. The mean age was  $26.5 \pm 9.63$ . The range was between 18 and 62 years of age. It was the first psychiatric visit for 34 (48.6%) patients; 27 (37.6%) of 70 patients had 4 or more visits. The mean number of visits for each patient was 2.3 and the mean number of psychiatric diagnosis except for Dissociative Identity Disorders was 1.5. Only 17 patients (24.3%) had the diagnosis of DPD; 47 patients (67.1%) had comorbid depressive symptoms, 21 patients (30%) had comorbid conversion disorder, and 14 patients (20%) had comorbid diagnosis of anxiety disorder. And some patients had the diagnosis of personality disorders, substance-use disorders, and post-traumatic stress disorder. As the first complaints, 35 patients (50%) had dissociative symptoms, 49 patients (70%) had depressive symptoms, 28 patients (40%) had somatic symptoms, 30 patients (42.9%) had Schneiderian first rank symptoms, 21 patients (30%) had anxious symptoms, and 21 patients (30%) had self-mutilative behaviours. As the trauma types, 29 patients (41.4%) had a story about sexual abuse, 45 patients (64.3%) had a story about physical abuse, 29 patients (41.4%) had a story about emotional abuse, 34 patients (48.4%) had a story of chronic neglect, 12 patients (17.1%) had a story of loss of a relative, 2 patients (12.9%) had the story of witnessing an accident, and 2 patients had no story of trauma.

**Conclusions:** The symptoms of Dissociative Identity Disorders can be related to many psychiatric disorders. Patients are generally misdiagnosed as we determined in our study and previous studies. Dissociative symptoms should be checked regularly during psychiatric interviews to prevent from misdiagnosis. The successful treatment could be possible after the right diagnosis.

#### KEYWORDS

Complaints; Dissociative Disorder; Dissociative Personality Disorder; Dissociative Disorder Comorbidity; Etiological Traumas; Sociodemographic Characteristics

## References

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[Abstract:0500][Psychosomatic medicine and liaison psychiatry]

## Relationship between ruminative thinking styles and anxiety and depression in patients with inflammatory bowel disease

Rümeysa Yeni Elbay<sup>a</sup>, Hasan Turan Karatepe<sup>a</sup> and Celal Ulaşoğlu<sup>b</sup>

<sup>a</sup>Department of Psychiatry, Istanbul Medeniyet University Goztepe Training and Research Hospital, Istanbul, Turkey; <sup>b</sup>Department of Gastroenterology, Istanbul Medeniyet University Goztepe Training and Research Hospital, Istanbul, Turkey

E-mail address: [drumeysa@gmail.com](mailto:drumeysa@gmail.com)

#### ABSTRACT

**Objective:** Inflammatory bowel disease (IBD), including two major gastrointestinal disorders, namely Crohn's disease (CD) and ulcerative colitis (UC), affects nearly 28 million people worldwide and there is an upward tendency in morbidity of the disease. Long time of sickness and repeated flares greatly affect patient's study, work, and life, which finally leads to a negative effect on their psychological well-being. In this study, we aimed to evaluate ruminative thinking styles (rumination and worry) which are important cognitive processes involved in the development of depression and anxiety disorders in patients with inflammatory bowel disease.

#### KEYWORDS

Anxiety; depression; inflammatory bowel disease; ruminative thinking styles; rumination; worry



**Methods:** A total of 100 IBD outpatients (39 in active period and 61 in remission) attending to gastroenterology outpatient clinic in Istanbul Medeniyet University Goztepe Research and Training Hospital, and 100 healthy controls who have no bowel disease or any acute psychiatric disorders were included in the study. Hospital Anxiety and Depression Scale, Turkish version of Ruminative Thinking Scale, and Penn State Worry Questionnaire were filled by all subjects and socio-demographic form was completed by researchers.

**Results:** In our study, we found significantly higher scores of rumination and worry in patient group compared to the controls ( $p < 0.001$  and  $p = 0.007$  respectively). Also patients in active period of IBD had higher scores of rumination ( $p = 0.004$ ) and worry ( $p < 0.001$ ) compared to the controls. There were statistically significant differences in rumination scores ( $p = 0.026$ ) but not in worry scores ( $p = 0.153$ ) in patients in remission period compared to the controls. Additionally, in the patient group, there were statistically significant correlations between rumination and worry, and Anxiety, Depression and Total scores of Hospital Anxiety and Depression Scale.

**Conclusions:** These findings suggest that ruminative thinking levels are higher in patients with IBD in acute period and this might be related to higher scores of HAD. Interventions for the levels of ruminative thinking in IBD patients may contribute to a decrease in the symptoms of anxiety and depression and psychiatric comorbidity in these patients.

[Abstract:0514][Other]

## Retrospective analysis of psychiatric disorders in children and adolescent with migraine and tension-type headache

Hamza Ayaydın<sup>a</sup>, Fethiye Kılıçaslan<sup>a</sup> and Mehmet Asoğlu<sup>b</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Harran University School of Medicine, Sanliurfa, Turkey; <sup>b</sup>Department of Psychiatry, Harran University School of Medicine, Sanliurfa, Turkey

E-mail address: [mehmetasoglu@gmail.com](mailto:mehmetasoglu@gmail.com)

### ABSTRACT

**Objective:** As in all ages of life, headache is a common condition among children and adolescent, which adversely affects daily living. In a study on school-aged children, it was reported that 15–20% of children suffer headache. In addition, its incidence is progressively increasing among adolescents. In children, migraine and tension-type headache (TTH) comprises majority of primary headaches. Depression, anxiety disorders, and somatization disorder are commonly seen among children and adolescents with headache. In this study, it was aimed to review psychiatric diagnoses retrospectively in children and adolescents who were consulted for migraine and TTH by paediatric neurology outpatient clinic.

**Methods:** We retrospectively reviewed records of 5,187 patients who presented to the Harran University School of Medicine's Child and Adolescent Psychiatry Department between the dates of January 1, 2017 and December 29, 2017. The data of 35 patients who were referred with migraine and TTH by paediatric neurology outpatient clinic were assessed regarding psychiatric disorders in retrospective manner.

**Results:** Of the patients, 27 (77.14%) were girls while 8 (22.85) were boys. Mean age was 13.02 (range 8–16) years. Of the patients, 5 (14.28%) were elementary school, 12 (34.28%) were middle school, and 11 (31.42%) were high school students. Seven subjects (20%) were not attending to school. There was migraine in 14 patients (11 girls and 3 boys) (40%) and TTH in 21 patients (16 girls and 5 boys) (60%). Of the patients with migraine, a psychiatric diagnosis according to DSM-5 criteria was made in 8 patients (57.14%) including major depressive disorder (MDD) in 3 (21.42%), attention-deficit/ hyperactivity disorder (ADHD) in 3 (21.42%), nocturnal enuresis in one (7.14%), and anxiety disorder (AD) in one patient (7.14%). Of 8 patients with psychiatric comorbidity, 6 (75%) were girls while 2 (25%) were boys. There was MDD in 3 (27.27%) and AD in 1 (9.09%) of girls, while ADHD in 2 boys (66.66%). Of the patients with TTH, a psychiatric diagnosis according to DSM-5 criteria was made in 15 patients (71.42%) including MDD in 6 (40.0%), ADHD in 4 (26.66%), AD in 3 patients (20.0%), and ODD in 1 patient (6.66%). Of 15 patients with psychiatric comorbidity, 10 (66.66%) were girls while 5 (33.33%) were boys. There was MDD in 6 (37.5%) and AD in 3 (18.75%) of girls while there was ADHD in 4 (80.00%) and ODD in 1 (20.00%) of boys.

**Conclusions:** Psychiatric comorbidities generally make it difficult to treat headache and indicate poorer prognosis for headache. In the literature, it has been reported that both the depression and anxiety incidences are higher in children with migraine or TTH when compared to controls. Our study showed that depression and anxiety frequencies were higher in children with migraine or TTH in agreement with literature. In addition, it was seen that internalization disorder (MDD, AD) was more common among girls, whereas externalization disorders (ADHD, ODD) among boys. The headache affects physical,

### KEYWORDS

Children adolescent, headache; migraine; psychiatric comorbidity; tension-type headache

emotional, social life, academic success, thus, quality of life in children. It is important to reveal psychiatric comorbidity via a multi-disciplinary approach enabling timely intervention.

[Abstract:0520][Other]

## Social cognition in children with attention-deficit/ hyperactivity disorder, specific learning disorder, or autism spectrum disorder: relationship between clinical signs

Berkan Şahin<sup>a</sup>, Koray Karabekiroğlu<sup>b</sup>, Abdullah Bozkurt<sup>c</sup>, Miraç Barış Usta<sup>d</sup>, Muazzez Aydın<sup>b</sup> and Cansu Çobanoğlu<sup>b</sup>

<sup>a</sup>Iğdır State Hospital, Child and Adolescent Psychiatry, Iğdır, Turkey; <sup>b</sup>Ondokuz Mayıs University School of Medicine, Child and Adolescent Psychiatry, Samsun, Turkey; <sup>c</sup>Konya Training And Research Hospital, Child and Adolescent Psychiatry, Konya, Turkey; <sup>d</sup>Samsun Training And Research Hospital, Child and Adolescent Psychiatry, Samsun, Turkey

E-mail address: [mail.berkan@gmail.com](mailto:mail.berkan@gmail.com)

### ABSTRACT

**Objective:** Autism Spectrum Disorder (ASD), Attention-deficit/ hyperactivity disorder (ADHD), and Specific Learning Disorder (SLD) are neurodevelopmental disorders characterized by social impairments that are common in childhood. The relationship between social impairment and social cognition skills is first demonstrated in patients with ASD and there are many studies evaluating ASD and ADHD subjects. There are no social cognitive studies evaluating these three diagnostic groups which are the most common neurodevelopmental disorders in childhood. The aim of this study was to describe the social cognitive skills of pre-adolescent ADHD, SLD, and ASD children and to compare these skills with typically developing children.

**Methods:** Twenty-four children with ADHD, 24 children with SLD, 26 children with ASD, and 24 children with no psychiatric diagnoses were included in the study. The Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version (K-SADS-PL), Peabody Picture Vocabulary Test, First and Second Order False Belief Task, Hinting Task, Faux Pas Task, and the Reading the Mind in the Eyes Task (RMET) were administered by the investigator, WISC-R was administered by the psychologist, and the parents and teachers filled out the Aberrant Behavior Checklist, Social Responsiveness Scale, Disruptive Behavior Disorder Rating Scale, Learning Disorders Symptom Scale, Autism Behavior Checklist, and Childhood Autism Rating Scale.

**Results:** It was found that in all the tests in which we evaluated the Theory of Mind (ToM) skills, the SLD, ADHD, and ASD groups showed low performance compared to the control group, and that the performance of all three patient groups did not differ significantly. Intelligence and language development showed a positive correlation with ToM performance and after these two covariates were controlled, there was a significant effect on RMET performance. There was a significant negative correlation between scale scores evaluating problems in social reciprocity, problem behaviour, attention and learning areas, and ToM skills. There was a relationship between disease severity and simple ToM skills in ASD subjects, but no correlations between advanced ToM skills were found. ODD comorbidities were found higher in ADHD patients. The presence of ODD comorbidity has an impact on the basic ToM skills but not on the advanced ToM skills. SLD subjects who have no ADHD comorbidity were found to be similar to the control group in terms of simple ToM skills but showed poor performance in advanced ToM skills.

**Conclusions:** The results of this study showed that the social cognition skills of the ASD, ADHD, and SLD were poorer than those of typically developed children. The children in the patient group have more social and academic problems and that there is a relationship between these problems and the ToM skills. There are many parameters that affect ToM skills. However, it is important to determine the social cognitive characteristics of the patients, to identify areas of difficulty, and to apply patient-tailored treatment approaches.

### KEYWORDS

Specific learning disorder; autism; ADHD; social cognition; theory of mind

[Abstract:0521][Addiction]

## Determination of the prevalence of HBV, HCV, and HIV infections and the HCV genotype distribution in intravenous substance users

Hüseyin Kara<sup>a</sup>, Yalçın Kahya<sup>a</sup>, Özgen Özçelik<sup>a</sup>, Dilara İnan<sup>b</sup> and Mehmet Murat Kuloğlu<sup>a</sup>

<sup>a</sup>Akdeniz University School of Medicine, Department of Psychiatry, Antalya, Turkey; <sup>b</sup>Akdeniz University School of Medicine, Department of Infectious Diseases and Clinical Microbiology, Antalya, Turkey

E-mail address: [drozgendeu35@yahoo.com](mailto:drozgendeu35@yahoo.com)

#### ABSTRACT

**Objective:** Today, substance-use disorders constitute an important problem concerning both personal and societal health. Substance-use disorders are increasingly more prevalent in our country and throughout the world. It is observed that diseases transmitted by blood are prevalent in those with intravenous (IV) opiate substance use. It was determined that approximately half of those who engage in IV substance use reused another person's needle and a very large portion either used wrong methods to clean the needles or did not clean at all. IV drug users are a significant risk group for hepatitis C virus (HCV) infection due to the use of contaminated needles and injection equipment. The rate of HCV positivity rises up to 50–90% in IV substance users. A study carried out in England determined that, for 428 IV drug users under the age of 30, 4% encountered HIV and 44% encountered hepatitis C. The most common HCV subtype was determined in a study in Thailand as HCV-3a (50–60%) as a result of sequence analysis of amplified fragments of HCV genome, as 1a and 3a when HCV sequence data of 108 IV drug users from 7 European countries was analysed, and as 3b and 6a for 125 participants in China. In a study done in Turkey, genotype 1 was observed in 120 of 238 (50.4%) chronic HCV-infected IV substance users.

**Methods:** In this study, patients who consulted with Akdeniz University Alcohol and Substance Dependency Research and Implementation Centre (AMBAUM) during a six-month period with IV substance use and who were found positive for HBV, HCV, and/or HIV were referred to the Infectious Diseases and Clinical Microbiology Outpatient Clinic and further examinations were made.

**Results:** Of 95 patients, 56% were detected positive for hepatitis C virus and 2% for hepatitis B virus. Of these, 65% went to the Infectious Diseases and Clinical Microbiology Outpatient Clinic and the common genotype was determined as Genotype 1A. IV substance use and the sharing of needles also increase the prevalence of primarily HIV and other infections.

**Conclusions:** In those with substance-use disorder, difficulties are encountered in the treatment of infections like HIV and HCV. For this reason, close follow-up of patients with substance-use disorder and more effective implementation of preventive health services on this group of patients must be aimed.

#### KEYWORDS

Intravenous substance use; genotype; HBV; HCV; infections; prevalence

[Abstract:0543][OCD]

## Relationship between selective attention, cognitive flexibility, response inhibition, and theory of mind functions in obsessive-compulsive disorder

Ali Ercan Altınöz, Ferdi Köşger and Altan Eşsizöğlü

Department of Psychiatry, Eskişehir Osmangazi University School of Medicine, Eskişehir, Turkey

E-mail address: [ercanaltinoz@hotmail.com](mailto:ercanaltinoz@hotmail.com)

#### ABSTRACT

**Objective:** The aim of this study was to examine the relationship between theory of mind (ToM) functions and selective attention, response inhibition, cognitive flexibility, and executive functions in obsessive-compulsive disorder (OCD) patients. In addition, we aimed to determine if theory of mind functions were associated with executive functions in OCD patients.

**Methods:** Sociodemographic Data Form, Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), Wisconsin Card Sorting Test (WCST), Stroop Test, Eyes Test, Hinting Test were administered to 48 patients with OCD diagnosis and a healthy controls composed of 39 patients. In addition, Yale-Brown Obsessive Compulsive Scale (Y-BOCS) was administered to the OCD group.

**Results:** When the groups were compared in terms of cognitive tests, no differences were found between them. When the groups were compared in terms of ToM tests, the OCD group was found to score significantly lower than the control group in the Eyes test. In the OCD group, negative correlations were found between Eyes Test score and Beck Anxiety Inventory, Stroop 5 Error, and WCST completed category, WCST perseveration errors ( $p < 0.05$ ,  $p < 0.05$ ,  $p < 0.01$ ,  $p < 0.05$ ; respectively). In the OCD group, there was a significant negative correlation between the test score and the Stroop 5 time interference ( $p < 0.01$ )

**Conclusions:** There is lack of literature on ToM functions in OCD patients. To the best of our knowledge, this is the first study showing negative correlations between ToM functions and executive functions in OCD patients. Further studies are needed to determine the role of ToM functions in OCD psychopathology.

#### KEYWORDS

Cognitive flexibility; executive functions; Eyes Test; obsessive-compulsive disorder; theory of mind

[Abstract:0544][Mood disorders]

## Sexual satisfaction in male patients with bipolar disorder and their healthy spouses

Mehmet Arslan<sup>a</sup>, Ali Metehan Çalışkan<sup>b</sup>, Duygu Göktaş<sup>c</sup>, İkbâl İnanlı<sup>b</sup>, Saliha Çalışır<sup>b</sup> and İbrahim Eren<sup>b</sup>

<sup>a</sup>Department of Psychiatry, Babaeski State Hospital, Kırklareli, Turkey; <sup>b</sup>Department of Psychiatry, Konya Training and Research Hospital, Konya, Turkey; <sup>c</sup>Department of Psychiatry, Yozgat City Hospital, Yozgat, Turkey

E-mail address: [drmehmetarslan@hotmail.com](mailto:drmehmetarslan@hotmail.com)

### ABSTRACT

**Objective:** Bipolar disorder (BD) is a chronic disorder with recurrent depressive and manic/hypomanic episodes that negatively affect social and professional functionality. Only a limited number of studies have evaluated sexual functions in patients with bipolar disorder (BD) and their spouses. Dell'Oso et al. reported that patients with BD had a higher lifelong sexual dysfunction rate when compared to controls. Similarly, Hariri et al. found that patients with BD in remission experience more sexual problems than healthy controls. In addition, a decline in sexual satisfaction level of the patients' partners following the onset of the disorder was reported. The aim of the present study was to compare the sexual problem levels of male patients with BD and their healthy spouses with those of healthy couples and to examine potential factors that affect sexual problems.

**Methods:** The study was a cross-sectional design conducted at the Konya Research and Training Hospital. Sixty male outpatients with BD in remission and their healthy female spouses were included as couples in the study. All patients were under medication. Another 40 healthy couples were included as the control group. Participants were assessed with the socio-demographic data form, Hamilton Depression Rating Scale (HDRS), Hamilton Anxiety Rating Scale (HARS), Young Mania Rating Scale (YMRS), and Golombok Rust Inventory of Sexual Satisfaction (GRISS).

**Results:** Logistic regression analysis which included the GRISS total score of the partner as one of the dependent factor, was conducted to identify the sexual satisfaction differences between groups. Erectile dysfunction scores of male patients with BD were higher than healthy male controls (OR: 1.22,  $p=0.043$ ). Sexual communication score of patients' spouses were higher than healthy female controls ( $p=0.005$ , OR=1.33). Sexual problems were identified in 62% of patients and in 53% of patients' spouses, based on the GRISS total score. The subgroup logistic regression analyses revealed that sexual satisfaction was associated with depressive symptoms in patients (OR: 1.81,  $p=0.010$ ). Moreover, sexual satisfaction of patients' spouses was associated with patients' sexual satisfaction (OR: 1.06,  $p=0.011$ ).

**Conclusions:** Male patients with BD experience more problems in terms of ED, and their spouses experience more problems in terms of sexual communication compared to the healthy controls. Increased depressive symptom levels were correlated with patients' sexual dissatisfaction. Sexual dissatisfaction in the patients' spouses was also correlated with the patients' sexual dissatisfaction.

### KEYWORDS

Bipolar disorder; sexual satisfaction; sexual dysfunction; depression; sexual health

[Abstract:0549][Schizophrenia and other psychotic disorders]

## The effect of favourable lifestyle on reversal of metabolic syndrome in schizophrenic patients followed up for two years

Zeynep Baran Tatar and Erhan Kurt

Bakirkoy Prof. Dr. Mazhar Osman Research and Training Hospital for Psychiatry, Neurology, and Neurosurgery, Istanbul, Turkey

E-mail address: [drzeynepbaran@gmail.com](mailto:drzeynepbaran@gmail.com)

### ABSTRACT

**Objective:** Metabolic syndrome (MetS) is a clinical condition that consists of abdominal obesity, elevated blood pressure, lipid profile abnormalities, and elevated fasting plasma glucose according to the Adult Treatment Panel III A (ATP-III A) report of the National Cholesterol Education Program. Patients with schizophrenia have much higher prevalence than general population due to genetic predisposition, antipsychotic drugs, and unfavourable lifestyle (1). Among these risk factors, the unhealthy lifestyle and antipsychotic medications can be changed by intervention. Unfavourable lifestyle characterized by unhealthy food intake and little physical exercise is more prevalent in this patient group than in the general population

### KEYWORDS

Metabolic syndrome; schizophrenia; clozapine; favourable lifestyle; longitudinal study

(2, 3). Second-generation antipsychotic drugs especially olanzapine and clozapine are known for their elevated risk of causing MetS. Clozapine is preferred, especially in patients with treatment-resistant schizophrenia. For this reason, changes in antipsychotic drug therapy may not be possible despite metabolic disturbances. At this point, changes in lifestyle can be considered. One of the main objectives of our study is to examine MetS parameters in patients with schizophrenia and to determine the incidence of MetS and its reversal, secondly to detect the predictive factors to describe the incident and reversed cases.

**Methods:** The sample group of the study comprised patients who were followed up and monitored at the Psychotic Disorders Outpatient Clinic of Bakirkoy Training and Research Hospital as outpatients between January 1, 2014 and January 1, 2017 and were admitted with schizophrenia diagnosis per the DSM-IV-TR. We present a retrospective analysis of longitudinal data addressing socio-demographic characteristics, metabolic parameters, and favourable lifestyle features in these patients. MetS was defined by fulfilling three or more of the five criteria defined by ATP-III A.

**Results:** Three hundred and fifty patients with a mean age of 42.6 were included in the study. The metabolic syndrome prevalence was 20% in the first assessment, while 25.4% in the last assessment. The increase in MetS prevalence at first and last evaluation was not significant ( $p=0.052$ ). We found two-year incidence of 13% and a rate of 33% for reversal of MetS within two years. The logistic regression analysis revealed that the increase in age and less favourable life style had a significant effect on incident cases and the only significant variable that predicted the reversal was the favourable lifestyle.

**Conclusions:** Our study showed that favourable lifestyle may have an impact on reversal of MetS in patients with schizophrenia. Healthy food intake and more physical activity may represent an important therapeutic target to control metabolic abnormalities in these patients.

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[Abstract:0570][Schizophrenia and other psychotic disorders]

## Alpha-7 nicotinic acetylcholine receptor positive allosteric modulators improve GABAergic deficits induced by subchronic MK-801 model of schizophrenia in rats

Gokhan Unal<sup>a</sup> and Feyza Aricioglu<sup>b</sup>

<sup>a</sup>Erciyes University School of Pharmacy, Department of Pharmacology, Kayseri, Turkey; <sup>b</sup>Marmara University School of Pharmacy, Department of Pharmacology and Psychopharmacology Research Unit, Istanbul, Turkey

E-mail address: [ecz\\_gokhanunal@hotmail.com](mailto:ecz_gokhanunal@hotmail.com)

### ABSTRACT

**Objective:** Schizophrenia is a chronic and young-onset psychiatric disorder, having 0.5–1% prevalence and characterized by positive, negative, and cognitive symptoms. While current treatments improve most of the positive symptoms, they are not successful enough to prevent negative and cognitive symptoms. Additionally, they may cause serious side effects such as tardive dyskinesia and metabolic syndrome. Therefore, new drug development became an important target for schizophrenia treatment. Glutamatergic hypoactivity has been shown to play a fundamental role in the pathophysiology of schizophrenia and N-methyl-D-aspartate receptor (NMDAR) antagonists such as MK-801 and Phencyclidine are widely used for modelling schizophrenia in rats [1]. Deficits in glutamic acid decarboxylase (GAD) 67 and parvalbumin expressions are well-known molecular findings of schizophrenia [2]. Recent studies have shown that alpha-7 nicotinic acetylcholine receptors (nAChR) play an important role in the neurobiology of the disease. Besides, agonists and positive allosteric modulators (PAMs) of nAChR might be valuable candidates for schizophrenia treatment [3]. In this study, we examined the effects of alpha-7 nAChR partial agonist (A-582941), type I PAM (CCMI), type II PAM (PNU-120596), and their combinations (A-582941 + CCMI and A-582941 + PNU-120596) on hippocampal GAD67 and parvalbumin gene expressions in subchronic MK-801 model of schizophrenia in rats.

### KEYWORDS

A-582941; CCMI; PNU-120596; MK-801; nicotinic acetylcholine receptor; schizophrenia



**Methods:** Male Wistar Hannover rats were divided into nine groups ( $n = 6$  per group): Control, Vehicle (Dimethyl sulfoxide), MK-801 (0.2 mg/kg), MK-801 + Clozapine (5 mg/kg), MK-801 + A-582941 (1 mg/kg), MK-801 + CCMI (1 mg/kg), MK-801 + PNU-120596 (3 mg/kg), MK-801 + A-582941 + CCMI (0.33/0.33 mg/kg), MK-801 + A-582941 + PNU-120596 (0.33/1 mg/kg). MK-801 (0.2 mg/kg) was intraperitoneally (i.p.) injected twice a day for 7 days. After a week of washout period, treatments were administered once a day for 10 days. Rats were decapitated 24 hours after the last dose of treatments. Real-time polymerase chain reaction (Rt-PCR) was conducted to determine the levels of parvalbumin and GAD67 gene expressions in hippocampus. For each sample, the level of target gene transcripts was normalized to GAPDH. Cp values were calculated with  $2^{-\Delta\Delta CT}$  method according to the following formula:  $2^{-\Delta\Delta CT} = 2^{-(Ct_{\text{target}} - Ct_{\text{target reference}}) / 2^{-(Ct_{\text{control}} - Ct_{\text{control reference}})}} \times 100$ . One-way analysis of variance (ANOVA) followed by Dunnett's post hoc test was used for statistical analyses in GraphPad Prism software.

**Results:** MK-801 administration significantly decreased parvalbumin and GAD67 gene expressions compared to control group ( $p < 0.01$ ). Clozapine ( $p < 0.05$ ), CCMI ( $p < 0.01$ ), PNU-120596 ( $p < 0.01$ ), A-582941 + CCMI ( $p < 0.001$ ) and A-582941 + PNU120596 ( $p < 0.001$ ) treatments reversed MK-801-induced parvalbumin deficit. CCMI ( $p < 0.001$ ), A-582941 + CCMI ( $p < 0.01$ ) and A-582941 + PNU-120596 ( $p < 0.05$ ) treatments increased GAD67 gene expressions compared to MK-801 group.

**Conclusions:** In our study, it was shown that CCMI, PNU-120596, and their combinations with A-582941, but not A-582941 alone, improved GABAergic deficits of schizophrenia in rats. Our results showed a clear superiority of alpha-7 nAChR PAMs (CCMI and PNU-120596) to a partial agonist (A-582941) on molecular findings of schizophrenia. Additionally, among others, CCMI was found to be the most promising candidate in our study. In addition to CCMI, the combination of alpha-7 agonist and PAM might be a valuable approach for schizophrenia treatment.

[Abstract:0579][Mental retardation]

## Analysis of health committee reports in a child and adolescent psychiatric clinic of a university hospital and possible preliminary factors for severe disability

Fatih Hilmi Cetin, Hasan Ali Guler, Mustafa Esad Tezcan and Serhat Turkoglu

Department of Child and Adolescent Psychiatry, Selçuk University School of Medicine, Konya, Turkey

E-mail address: [esadaxe@gmail.com](mailto:esadaxe@gmail.com)

### ABSTRACT

**Objective:** Severe disability is a definition for patients who are determined to be unable to fulfil their daily living activities without the help of others and who are found to have 50% or more of the disability rate.

In this study, it was aimed to share the data about the socio-demographic and clinical characteristics of the patients who presented to the disabled health committee and secondly to determine the possible parameters that distinguish the cases reported as severely disabled from other cases.

**Methods:** Data were collected retrospectively from Selçuk University School of Medicine Child and Adolescent Psychiatry Clinic files which were directed to receive a health committee report between January 2016 and December 2017. In the process of evaluating each case for the committee, a standard psychiatric examination was carried out by the research assistant and the consultant faculty member according to DSM-5 criteria. Each case was discussed with the family, and the stories and statements taken from the cases were confirmed. Ankara Developmental Screening Inventory (ADSI) and Wechsler Children's Intelligence Test (WISC-R) were administered to each case to support clinical diagnosis when necessary. Standard socio-demographic information of the cases was obtained with the standard data form created for this purpose.

**Results:** A total of 195 cases were evaluated. 59.5% of the cases were male and the mean age was  $83.3 \pm 64.6$  (4–216, min–max) months. Of the cases, 53.3% had applied to pay for maintenance and other social support, 46.7% had applied to various official institutions to declare the case. No psychopathology was found in 40.5% of the cases. The remaining of the cases were mental retardation (43.6%), autistic spectrum disorder (8.7%), specific learning disability (2.6%), adjustment disorder (1.5%), traumatic brain injury (1.5%) had attention-deficit/ hyperactivity disorder (1%), and post-traumatic stress disorder (0.5%); 54.9% of the cases had a comorbid neurological or other systemic diagnosis. The prevalence of neurological comorbidities was 49.1% in mild MR patients and the difference was significant ( $p < 0.001$ ), while 90.0% of patients were with severe mental retardation (MR); 47.7% of the patients were "severely disabled" as had been reported. Severe disability was 87.1% in moderate and severe MR cases, and 26.4% in mild MR cases, and the difference was

### KEYWORDS

Children; disability health committee; psychopathology; severe disability

significant ( $p < 0.001$ ). However, 70.1% of patients with systemic comorbid diagnosis and only 20.4% of patients without comorbid diagnosis were evaluated in severe disability category, the difference was significant ( $p < 0.001$ ).

**Conclusions:** This study has once again shown that the prevalence of neurological / systemic comorbidity increases as the severity of psychopathology increases. In addition, it has been determined that the presence of advanced psychopathology in terms of neurological / systemic comorbidity and moderate-to-severe MR may be predictive of reporting as severe disability. Considering the necessity of decision-making by a single child-adolescent psychiatrist in a very short period of time, it is necessary to clarify the issues which will be reported as severe disability with broader sample and more distinct parameters.

[Abstract:0582][OCD]

## Emotion regulation difficulties in youth with obsessive-compulsive disorder

Tuğba Kalyoncu, Deniz Argüz Çıldır and Fazilet Ergüvendi

Tepecik Research and Training Hospital, Izmir, Turkey

E-mail address: [deniz.argz@yahoo.com](mailto:deniz.argz@yahoo.com)

### ABSTRACT

**Objective:** Pediatric obsessive-compulsive disorder (OCD) is a common and debilitating disorder, which can result in substantial impairment in academic, social, and family functioning. The OCD symptoms may also cause deficits in emotion regulation (ER) skills. This study aimed to evaluate emotion regulation skills of youth with OCD and in comparison to controls whether participants with heightened OCD severity would have a poorer regulation of emotions.

**Methods:** Participants were 52 children aged 12–16 years (14 Male; 12 Female); 26 met DSM-5 criteria for OCD, and 26 were healthy comparison youth. The control group was matched for age, sex, and socio-economic levels. Both groups were assessed by based on Kiddie-Schedule for Affective Disorders and Schizophrenia (KSADS-PL). The clinical features and severity of the illness were measured by Children's Yale-Brown Obsessive-Compulsive Scale (C-YBOCS), Clinical Global Impression Scale (CGI). ER skills were examined by using the Difficulties in Emotion Regulation Scale (DERS). The analyses were performed with SPSS Statistics version 20 (IBM). The level of significance was set at  $p < 0.05$  and  $p < 0.001$ .

**Results:** The independent sample t-test results showed that children with OCD ( $M = 100.2$ ,  $SD = 21.8$ ) had more overall difficulties regulating their emotions than control sample ( $M = 84.1$ ,  $SD = 9.7$ ) ( $t = 3.417$ ,  $p < 0.05$ ). They also demonstrated less emotional awareness ( $M = 19.9$ ,  $SD = 5.6$ ) ( $t = 5.354$ ,  $p < 0.001$ ), and effective emotion regulation strategies ( $M = 21.4$ ,  $SD = 7.1$ ) ( $t = 2.135$ ,  $p < 0.05$ ). No significant differences were found between OCD and control groups in terms of non-acceptance of negative emotions, emotional clarity, ability to engage in goal-directed behaviour, and impulse control. In all sample, the DERS-Total score was positively correlated with CGI ( $r = 0.457$ ,  $p < 0.001$ ). Multiple linear regression analysis showed that the severity of illness (CGI) was a significant predictor of ER skills (DERS-Total) ( $\beta = 5.067$ ,  $p < 0.05$ ).

**Conclusions:** Our findings showed that OCD sample has difficulties to control their behaviours while experiencing negative emotions. Consistent with expectations, OCD severity was significantly related to poor understanding and regulating of the patients own emotions.

### KEYWORDS

Child; emotion; regulation; obsessive-compulsive disorder; severity

[Abstract:0583][Neuroscience: neuroimaging-genetics-biomarkers]

## Ribosomal DNA transcription in buccal epithelial cells of children diagnosed with attention-deficit/ hyperactivity disorder (ADHD): a preliminary study

Çigdem Yektaş and Recep Eroz

Duzce University School of Medicine, Department of Child and Adolescent Psychiatry, Duzce, Turkey

E-mail address: [drcigdemyektas@hotmail.com](mailto:drcigdemyektas@hotmail.com)

### ABSTRACT

**Objective:** The nucleolar organizer regions (NORs) are functional subunits of the nucleolus and composed of ribosomal DNA and proteins. We aimed to examine the AgNOR protein levels in buccal epithelial tissue of ADHD children compared to the healthy controls.

### KEYWORDS

AgNOR's; ADHD; buccal epithelial tissue; diagnostic parameter; rDNA transcription

**Study Design:** Buccal epithelial samples were collected from twelve male patients, diagnosed with ADHD-combined type. Ten age- and gender-matched patients without any psychiatric or chronic disease were included as control group. The captured images were transferred to image processing software and one hundred nuclei have been evaluated for each, and mean Total AgNOR number/Total nuclear number (TAN/TNN), and Total AgNOR area/Total nuclear area (TAA/TNA) ratios were calculated.

**Results:** TAA/TNA and TAN/TNN of ADHD patients was significantly lower than healthy controls ( $p < 0.05$ ). In polynomial regression analysis, there was a statistically negative relation between inattention subscale scores and TAA/TNA in ADHD patients ( $R^2: 0.72$ ;  $p = 0.014$ ). There was also statistically negative relation between hyperactivity-impulsivity scores and TAA/TNA in ADHD children ( $R^2: 0.59$ ;  $p = 0.05$ ).

**Conclusions:** There is no diagnostic or follow-up parameter for ADHD. AgNOR staining method from buccal epithelial cells is a conventional, karyometric, and non-invasive method which would be helpful to enhance the diagnostic accuracy of ADHD. Additional studies should be conducted to obtain more certain knowledge about this topic.

[Abstract:0584][Impulse control disorders]

## The influence of volleyball on impulsivity and problematic behaviours of adolescents

Gokhan Yurdakul<sup>a</sup>, Mahmut Cakir<sup>b</sup>, Mehmet Yalcin Tasmektepligil<sup>c</sup>, Saliha Baykal<sup>d</sup>, Mirac Baris Usta<sup>e</sup>, Melih Nuri Karakurt<sup>f</sup> and Koray Karabekiroglu<sup>g</sup>

<sup>a</sup>Ondokuz Mayıs University Health Sciences Institute, Samsun, Turkey; <sup>b</sup>Child Psychiatry Clinic, SS Amasya Education and Research Hospital, Amasya, Turkey; <sup>c</sup>Ondokuz Mayıs University Yasar Dogu Sport Sciences Faculty, Department of Sport Management, Samsun, Turkey; <sup>d</sup>Namık Kemal University School of Medicine, Child and Adolescent Psychiatry Department, Tekirdag, Turkey; <sup>e</sup>Child Psychiatry Clinic, Samsun Education and Research Hospital, Samsun, Turkey; <sup>f</sup>Samsun Psychiatric Hospital, Pediatric Psychiatry Clinic, Samsun, Turkey; <sup>g</sup>Ondokuz Mayıs University School of Medicine, Department of Child Psychiatry, Samsun, Turkey

E-mail address: [mahcakiroglu@gmail.com](mailto:mahcakiroglu@gmail.com)

### ABSTRACT

**Objective:** It has been reported that individuals who do sports activities have lower aggressive behaviour and impulsivity levels, and especially in adolescents with attention-deficit/hyperactivity disorder (ADHD), regular and planned sports activities fit for purpose have been reported to have positive influences on the functions of cognitive and behavioural preventive control, planning, and organization. Therefore, the objective of this study is to analyse the influences of volleyball sport activity on adolescents' impulsivity and behavioural problems, specifically, to find out the association between regular and continuing sports activity on impulsivity and behaviour patterns and to show whether impulsivity and problematic behaviour patterns change through volleyball.

**Methods:** Forty-seven adolescents between the ages of 12 and 18 who had been playing volleyball and 47 healthy adolescent controls who had not been doing any sport activities were included in the study. Volleyball training was conducted between December 2015 and March 2016, six hours a week for 12 weeks in total. Before starting the volleyball activity, the study participants were assessed synchronously by a child and adolescent psychiatry specialist for possible psychiatric disorders through clinical psychiatric interview, DSM-5 diagnostic criteria, and Schedule for Affective Disorders Schizophrenia for School Aged Children, Present and Lifetime Version (in Turkish). Socio-demographic Data Form, Child Behaviour Checklist (CBCL) and Screening and Assessment Scale based on DSM-IV for Behavioural Disorders in Children and Adolescents given to the ADHD group before volleyball activity, and on the first and third months of post-activity and to the control group at the same time were completed by the parents, while Barratt Impulsiveness Scale (BIS) and Youth Self Report Scale (YSRS) were filled in by participant adolescents self-reportedly.

**Results:** Post-activity CBCL, YSRS, and BIS impulsivity and problematic behaviour scores at the first and third month were found to decrease significantly in the ADHD group compared to the controls. This decrease was found to be more evident when activity time increased. While significant decrease was found in all impulsivity and problematic behaviours scores of the ADHD group in post-activity first and third month, adolescents who had ADHD and/or Oppositional Defiant Disorder (ODD) when compared to those who did not, no significant decrease was found in the scores in all post-activity at the first and third month assessments.

**Conclusions:** In this study, volleyball sport activity was found to cause significant recovery in impulsivity and problematic behaviours, and this recovery was found to be associated with regular, planned, and continuous activity, and activity time. On the other hand, it was found that impulsivity and problematic behaviour patterns of the cases with ADHD and/or ODD did not recover significantly and that they may need medical management.

### KEYWORDS

Adolescent; activity; behaviour; impulsivity; sport; volleyball

[Abstract:0585][ADHD]

## Executive functions profile in children and adolescents with or without ADHD: by using performance-based measures and homework and work habits (HWH) questionnaire

Yasemin Yula<sup>a</sup>, Funda Gümüştaş<sup>b</sup>, Sebla Gökçe<sup>c</sup> and Yankı Yazgan<sup>d</sup>

<sup>a</sup>Department of Psychology, Istanbul Gelisim University, Istanbul, Turkey; <sup>b</sup>Child and Adolescent Psychiatry Clinic, Marmara University Education Research Hospital, Istanbul, Turkey; <sup>c</sup>Child and Adolescent Psychiatry Clinic, Maltepe University School of Medicine, Istanbul, Turkey; <sup>d</sup>Child and Adolescent Psychiatry Clinic, Marmara University School of Medicine, Istanbul, Turkey

E-mail address: [yaseminyulaf@gmail.com](mailto:yaseminyulaf@gmail.com)

### ABSTRACT

**Objective:** The first purpose of this study was to compare executive functions in children and adolescents with and without ADHD using performance-based measures. The second aim was to demonstrate how daily functions of the children and adolescents with ADHD are impaired using the developed questionnaire about Homework and Work Habits (HWH). Finally, we aimed to examine the relationship between HWH ratings and performance-based measures of executive functions.

**Methods:** A group of children between the age of 7 and 17 who met the DSM-IV criteria for the first time for ADHD ( $n = 60$ ) as the patient group and 7–17 aged children and adolescents ( $n = 60$ ) as the healthy control group were included in this study sample. Parents and teachers of the participants were asked to complete a form of Conner's Parent and Teacher Ratings and HWH ratings to evaluate performance-based executive functions. Participants completed the Wisconsin Card Sorting, Stroop Color and Word and Trail Making (B) tasks. In addition, HWH questionnaire was given to the children and adolescents and their intelligence level was evaluated by using the Wechsler Intelligence Scale for Children-Revised (WISC-R).

**Results:** ADHD group participants displayed lower performance on all of the performance-based executive functions measures and lower HWH scores compared to the controls. The HWH questionnaire was found to be significantly related with performance based executive function tests negatively.

**Conclusions:** HWH questionnaire may be a more feasible and cost-effective method to evaluate executive functions compared to performance-based measures in children and adolescents. It can also be used to monitor levels of executive functions before and after medical management in children and adolescent with ADHD.

### KEYWORDS

ADHD; executive functions; homework and work habits; children; adolescence

[Abstract:0592][Anxiety disorders]

## Autistic/schizotypal traits in adult-onset and adolescent obsessive-compulsive disorder patients

Çağdaş Öykü Memiş<sup>a</sup>, Doğa Sevincok<sup>b</sup>, Bilge Doğan<sup>a</sup>, Ayşe Kutlu<sup>c</sup>, Burcu Çakaloz<sup>d</sup> and Levent Sevinçok<sup>a</sup>

<sup>a</sup>Department of Psychiatry, School of Medicine, Adnan Menderes, Aydın, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Adnan Menderes University School of Medicine, Aydın, Turkey; <sup>c</sup>Department of Child and Adolescent Psychiatry, Behcet Uz Child Diseases and Neurosurgery Research and Training Hospital, İzmir, Turkey; <sup>d</sup>Department of Child and Adolescent Psychiatry, Pamukkale University School of Medicine, Denizli, Turkey

E-mail address: [cagdasoyku@hotmail.com](mailto:cagdasoyku@hotmail.com)

### ABSTRACT

**Objective:** The primary aim of the present study was to examine whether adult-onset (AO) OCD patients would differ from subjects with juvenile OCD in terms of autistic and schizotypal traits, socio-demographic variables, and clinical characteristics. Our hypothesis was that juvenile OCD differs from adult onset OCD with respect to autistic and schizotypal traits, and therefore, juvenile and adult onset OCD are different subtypes of disorder.

**Methods:** Adolescent OCD patients (current age 12–17 years;  $n = 29$ ) who consecutively admitted to Child and Adolescent Psychiatry Department of Behcet Uz Child Diseases and Neurosurgery Research and Training Hospital were interviewed with the Kiddie Schedule for Affective Disorders and Schizophrenia-Present state and Lifetime version (KSADS-PL). Adult patients who were 18–65 years who had the diagnosis of OCD according to Diagnostic and Statistical Manual of Mental Disorders, 4th edition DSM-IV criteria were recruited from consecutive subjects who were admitted to the psychiatry department of the Adnan

### KEYWORDS

Adolescents; adults; autistic traits; schizotypal traits; subtypes

Menderes University (onset age and current age  $\geq 18$  years;  $n = 60$ ). The severity and content of obsessive-compulsive symptoms were determined through Childhood Yale-Brown obsessive-compulsive scale (CYBOCS) and Yale-Brown Obsessive-Compulsive Scale (Y-BOCS). Autism symptoms were assessed by using the Turkish version of Autism-Spectrum Quotient (AQ). Schizotypal traits were assessed using Turkish version of 22-item Schizotypal Personality Questionnaire (SPQ-B).

**Results:** The course of OCD in AO patients was chronic, whereas adolescent patients had a more episodic course. The rates of lifetime aggressive, religious, and somatic obsessions were significantly higher in adolescent patients compared to AO patients. Adolescent patients had also more lifetime checking, ritualistic, and miscellaneous compulsions than AO patients. The mean number of lifetime obsessions, and compulsions were significantly higher in adolescents than in AO subjects. We have found that total, attention switching, and imagination scores of AQ in AO patients were higher than in adolescent patients. In contrast, adolescent patients had higher scores of total, cognitive-perceptual, interpersonal, and disorganized scores of SPQ-B compared to AO patients. The correlation analysis in adolescent group revealed that total scores of AQ, and SPQ-B were significantly correlated with the mean number of lifetime obsession, and compulsions. There were also significant correlations between total AQ scores and total, cognitive-perceptual, interpersonal, and disorganized scores of SPQ-B. In the AO group, total scores of AQ and SPQ-B were not correlated with the mean number of lifetime obsessions and compulsions. There were significant correlations between total AQ scores and total, cognitive-perceptual, interpersonal, and disorganized scores of SPQ-B.

**Conclusions:** Our findings suggested that autistic traits might have been related to development of OCD in adulthood, indicating a subgroup of patients in adults. Clinical profile of OCD adolescent patients seemed to be influenced by autistic and schizotypal traits, indicating an autistic and schizotypal subtype of OCD in this age group. We also suggest that the differences between adolescent and AO patients represent developmentally variable manifestation of OCD across juvenile and adult periods. OCD in adolescents seemed to be related to an autistic and schizotypal subtype of the disorder.

[Abstract:0596][OCD]

## Anxiety sensitivity and sleep habits of adolescents diagnosed with obsessive-compulsive disorder

Deniz Argüz Çıldır, Tugba Kalyoncu and Fazilet Arkat Ergüvendi

Department of Child and Adolescent Psychiatry, Tepecik Research and Training Hospital, Izmir, Turkey

E-mail address: [deniz.arguz@yahoo.com](mailto:deniz.arguz@yahoo.com)

### ABSTRACT

**Objective:** In this study, we aimed to examine the anxiety sensitivities, sleep characteristics of adolescents diagnosed with obsessive-compulsive disorder (OCD).

**Methods:** Participants were 27 adolescents diagnosed with OCD. Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime version (K-SADS-PL) interview was administered to all cases included. Severity and clinical features of OCD were assessed by the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS) and Clinical Global Impression Severity Index (CGI-SI). Anxiety sensitivity of participants was examined by the Childhood Anxiety Sensitivity Index (CASI) and sleep habits and possible sleep problems were assessed by Children's Sleep Habits Questionnaire (CSHQ). The State-Trait Anxiety Inventory (STAI) was used to measure of anxiety levels.

**Results:** The mean CASI (Childhood Anxiety Sensitivity Index) total sum was 33.18 (S.D.6.96) with scores ranging from 22 to 48. CASI cognitive factor scores were significantly positively correlated with CY-BOCS obsession, compulsion, and total scores ( $p = 0.006$ ,  $p = 0.000$ ,  $p = 0.001$ , respectively). Additionally, CASI cognitive factor scores were significantly positively correlated with CSHQ sleep duration and sleep disordered breathing scores ( $p = 0.012$ ,  $p = 0.049$ , respectively). While CSHQ sleep duration scores were significantly positively correlated with CY-BOCS obsession scores ( $p = 0.048$ ), CY-BOCS compulsion and total scores did not correlate with CSHQ scores. CY-BOCS compulsion and total scores tended to decrease when STAI-I and STAI-II scores increased.

**Conclusions:** The present study examined the relationship between anxiety sensitivity and obsessive-compulsive symptoms using dimensional measures of these constructs. Our correlational analyses suggested that these phenomena were associated with one another.

### KEYWORDS

Adolescent; anxiety; anxiety sensitivity; OCD; sleep habits



[Abstract:0598][Autism]

## Neuropsychiatric comorbidities in children with tuberous sclerosis: a retrospective cohort study

Çağatay Uğur

Health Sciences University, Ankara Child Health and Diseases Hematology Oncology Training and Research Hospital, Child and Adolescent Psychiatry Department

E-mail address: [drcagatay85@gmail.com](mailto:drcagatay85@gmail.com)

### ABSTRACT

**Objective:** Tuberous sclerosis complex (TSC) is an autosomal dominant condition, caused by mutations in either the TSC1 or TSC2 gene. It has widespread systemic manifestations and is associated with significant neurological morbidity. The most frequent neurologic symptoms are seizures, which occur in up to 90% of patients and are often intractable, followed by autism spectrum disorders (ASD), intellectual disability (ID), attention-deficit/hyperactivity disorder (ADHD), and sleep problems. ADHD is frequently present in patients with TSC, with a rate of 50%, comparable to the prevalence of ASD in TSC. In this study, we aimed to examine the frequency of neuropsychiatric comorbidities like ASD, ADHD, and OCD in patients with TS.

**Methods:** We reviewed retrospectively the patient charts and medical reports of 67 patients with TS diagnosis between the ages of 2 and 16 years registered between 2014 and 2018 in our clinic. Psychiatric interviews based on DSM-5 for neuropsychiatric diseases were evaluated during the health report procedures of patients with TS, and each case was filled with an autism behaviour checklist and Conners' Parent and Teacher Rating Scales.

**Results:** The average age of the group was found to be  $113.7 \pm 56.7$  months. Of the cases, 32 (47.8%) were female and 35 (52.2%) were male. ASD was detected 19.4% ( $n = 13$ ) of the TS cases, 49.3% ( $n = 33$ ) of intellectual disabilities, 28.4% ( $n = 19$ ) of ADHD, 6.0% ( $n = 4$ ) of OCD, and 7.5% ( $n = 5$ ) of specific learning disorder were detected.

**Conclusions:** Neuropsychiatric disorders are present in up to 90% of patients with TSC and represent an important issue for families. In our study, the prevalence of neuropsychiatric disorders was found to be quite high in patients with TS. Our work was found to be consistent with the results of the few studies conducted in this area. TSC is one of the most frequently identified monogenic causes of autism and a promising model to study its pathogenetic mechanism. However, the neurobiological pathway remains unclear and severity seems to have a notable variability in TSC patients. This cohort report is important because of its potential to give a new direction to studies that aim at the importance of early ASD screening and intervention for infants with TSC. Early recognition of patients developing neuropsychiatric disorders such as ASD symptomatology can bring them to early behavioural intervention focused on specific signs, and can address the need of global care requested by the families.

### KEYWORDS

Tuberous sclerosis complex; autism spectrum disorder; ADHD; OCD

[Abstract:0602][Other]

## Suicides, D-Type personality, depression, anxiety, and childhood traumas

İbrahim Yağcı<sup>a</sup>, Sema Avcı<sup>b</sup> and Yüksel Kıvrak<sup>c</sup>

<sup>a</sup>Kars Harakani State Hospital, Department of Psychiatry, Kars, Turkey; <sup>b</sup>Kars Harakani State Hospital, Department of Emergency, Kars, Turkey; <sup>c</sup>Kafkas University School of Medicine, Department of Psychiatry, Kars, Turkey

E-mail address: [ykivrak21@gmail.com](mailto:ykivrak21@gmail.com)

### ABSTRACT

**Objective:** The suicide is a significant health problem. It is among the leading causes of death. Female gender, young age, and lower socio-economic status are some of the risk factors. The risk level of suicide is higher for people having a psychiatric disorder than others. D-type personality has been described as the tendency to experience a high joint occurrence of negative affectivity and social inhibition. Personality disorder rates of people attempting or committing suicide may go up to 80%. The effects of the D-type personality are not known in cases of suicide.

**Methods:** We formed an experimental group with 43 patients who attempted suicide previously and a control group with 44 people. We requested all participants to fill out the

### KEYWORDS

Anxiety; depression; childhood trauma; suicide; type-D personality

survey form consisting of socio-demographic data, D-type Personality Scale, Childhood Traumas Scale, Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and Barratt Impulsiveness Scale (BIS).

**Results:** For the experimental patients group and the control group, we found that; for D-Type personality,  $26.43 \pm 8.72$  vs.  $17.02 \pm 7.53$   $p < 0.001$ ; for Childhood Traumas,  $66.98 \pm 11.25$  vs.  $47.69 \pm 5.23$   $p < 0.001$ , for Beck Depression Inventory,  $24.22 \pm 17.31$  vs.  $6.60 \pm 3.31$   $p < 0.001$ , for Beck Anxiety Inventory,  $25.39 \pm 15.83$  vs.  $11.96 \pm 3.57$   $p < 0.001$ , and for Barratt Impulsiveness Scale  $65.85 \pm 11.12$  vs.  $57.60 \pm 4.90 \pm 0.73$   $p < 0.001$ .

**Conclusions:** There is a relationship between Suicide Cases and D-Type Personality along with Childhood Traumas. Our results revealed that depression and anxiety had impact on suicide cases.

[Abstract:0604][Personality disorders]

## Epileptic temperament: is it related childhood traumas?

Alişan Burak Yaşar<sup>a</sup>, Ceyhun Sayman<sup>b</sup>, Serap Erdoğan Taycan<sup>a</sup>, Yılmaz Çetinkaya<sup>b</sup>, Anıl Gündüz<sup>a</sup> and Hülya Tireli<sup>b</sup>

<sup>a</sup>Department of Psychiatry, Health Sciences University Haydarpaşa Numune Research and Training Hospital, Istanbul, Turkey; <sup>b</sup>Department of Neurology, Health Sciences University Haydarpaşa Numune Research and Training Hospital, Istanbul, Turkey

E-mail address: [burakyasar54@hotmail.com](mailto:burakyasar54@hotmail.com)

### ABSTRACT

**Objective:** Epilepsy is a common chronic neurological disorder that disrupts the daily life activities, functioning of the person and affects the quality of life in the future (1). Childhood traumas are very important factors in the development or triggering of many psychiatric and medical diseases (2). Likewise, childhood traumas have a critical role in temperament and personality (3). Our aim was to examine the relationship between common temperament patterns and traits in epilepsy patients, and their relationship with childhood traumas. The first hypothesis in our study was that we have worse disease outcomes in patients with high childhood trauma scores in juvenile myoclonic epilepsy patients and that temperament traits common in these patients were also associated with childhood trauma. Another hypothesis was that juvenile myoclonic epilepsy was frequently associated with depressive symptoms, as well as the interaction of the anxiety symptoms with the course of the disease and the presence of childhood trauma.

**Methods:** The study was conducted with 38 volunteer patients who presented to the Haydarpaşa Numune Hospital Neurology Clinic Epilepsy Outpatient Clinic. They are diagnosed as epilepsy and placed in the follow-up list and they accepted to participate in the follow-up list. All participants were administered the Structured Clinical Interview for DSM-IV (SCID-I), the TEMPS-A scale, Childhood Trauma Questionnaire, the Beck Depression Scale (BDI), the Beck Anxiety Scale (BAI), and Sociodemographic Data Form.

**Results:** There was a significant relationship between depression and anxiety values in Juvenile Myoclonic Epilepsy (JME). When the subscale and subscale scores of the JME patients were compared with the subscale scores of the TEMPS-A scale, it was determined that the two groups (divided by points) differed in terms of depressive temperament and irritable temperament scores. A meaningful relationship between emotional neglect subscale and BDI was abolished. There was also a significant difference in BDI scores between the two groups at the same time. In the treatment of childhood diseases, there was a significant positive correlation between BDI and BAI. With BDI, a moderately significant relationship was found between irritable temperament, depressive temperament, cyclothymic temperament, and anxious temperament. A moderately significant relationship was found between IBS and irritable temperament, depressive temperament, cyclothymic temperament, and anxious temperament.

**Conclusions:** Time in patients with juvenile myoclonic epilepsy: the longer ones are more depressed. Temperament traits in juvenile myoclonic epilepsy patients are associated with childhood trauma in these patients.

### KEYWORDS

Juvenile myoclonic epilepsy; temperament; childhood trauma; depression; anxiety

## References

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[Abstract:0607][Psychopharmacology]

## The prescribing pattern of duloxetine in child and adolescent psychiatric disorders

Kemal Utku Yazici and Ipek Percinel Yazici

Firat University School of Medicine, Department of Child and Adolescent Psychiatry, Elazig, Turkey

E-mail address: [dr.kemal.utku@outlook.com](mailto:dr.kemal.utku@outlook.com)

### ABSTRACT

**Objective:** Duloxetine is a serotonin-noradrenaline reuptake inhibitor (SNRI). As the frequency of use increases in age groups for childhood and adolescence, the efficacy and side effects are still unclear. In this study, we aimed to discuss the efficacy and side effects of duloxetine used in our outpatient clinic due to various psychiatric disorders.

**Methods:** The files of patients who were diagnosed at the Firat University School of Medicine Child and Adolescent Psychiatry Outpatient Clinic, and who were treated with duloxetine treatment were evaluated retrospectively. Clinical Global Impression - Severity scale (CGI-S), Clinical Global Impression-Improvement scale (CGI-I) were used in the evaluation.

**Results:** A total of 28 cases using duloxetine treatment were detected. The mean age of the cases was 15.46 (SD=1.37). Diagnosis distribution was observed as: 32.21% ( $n=9$ ) generalized anxiety disorder, 10.7% ( $n=3$ ) major depressive disorder, 10.7% ( $n=3$ ) obsessive-compulsive disorder, 10.7% ( $n=3$ ) attention deficit hyperactivity disorder, 14.3% ( $n=4$ ) generalized anxiety disorder and major depressive disorder, 7.1% ( $n=2$ ) major depressive disorder and attention deficit hyperactivity disorder, 7.1% ( $n=2$ ) major depressive disorder and obsessive-compulsive disorder, 3.6% ( $n=1$ ) attention-deficit/ hyperactivity disorder and generalized anxiety disorder, and 3.6% ( $n=1$ ) major depressive disorder and body dysmorphic disorder. The average duloxetine dose used was 73.92 (SD=25.14) mg/day. The mean duration of use of duloxetine was 36.96 (SD=21.84) weeks; 64.3% of the cases ( $n=18$ ) were treated with monotherapy; 21.4% ( $n=6$ ) of the patients used atypical antipsychotic, 10.7% ( $n=3$ ) psychostimulant, 3.6% ( $n=1$ ) atomoxetine, in addition to duloxetine at one stage of duloxetine treatment. No side effects were detected during treatment in 53.6% of the cases ( $n=15$ ). The most common side effects observed in other cases were at a level not requiring drug discontinuation, 14.3% ( $n=4$ ) dizziness, 14.3% ( $n=4$ ) fatigue, 10.7% ( $n=3$ ) appetite change, 10.7% ( $n=3$ ) nausea/abdominal pain, and 7.1% ( $n=2$ ) headache. Treatment was stopped because of visual hallucinations in only one patient (3.6%,  $n=1$ ). In this patient with generalized anxiety disorder, duloxetine was discontinued, and then the hallucinations disappeared. At the beginning of duloxetine treatment, 60.7% ( $n=17$ ) of the cases were classified as markedly ill, 25.0% ( $n=7$ ) as severely ill, and 14.3% ( $n=4$ ) as moderately ill according to CGI-S scores. Improvement scores according to CGI-I evaluation of cases; 50.0% ( $n=14$ ) "much improved," 14.3% ( $n=4$ ) "very much improved," 14.3% ( $n=4$ ) "minimally improved," 14.3% ( $n=4$ ) "no change from baseline," 3.6% ( $n=1$ ) "minimally worse," and 3.6% ( $n=1$ ) "not assessed."

**Conclusions:** It can be said that duloxetine can be safely used and well tolerated in various psychiatric disorders in children and adolescents. Future prospective studies with large samples are needed to draw definitive conclusions.

### KEYWORDS

Children; adolescent; duloxetine; serotonin-noradrenaline reuptake inhibitor; psychopharmacology

[Abstract:0608][Psychopharmacology]

## Aripiprazole's cell killer, mutagenic, and destructive effects on chromosome structure and cell division mechanism

Yüksel Kıvrak<sup>a</sup>, Pınar Aksu Kılıç<sup>b</sup>, Süleyman Gül<sup>c</sup> and İbrahim Yağcı<sup>d</sup>

<sup>a</sup>Kafkas University School of Medicine, Department Psychiatry, Kars, Turkey; <sup>b</sup>Kafkas University School of Science, Department Biology, Kars, Turkey; <sup>c</sup>Kafkas University School of Science, Department of Molecular Biology, Kars, Turkey; <sup>d</sup>Kars Harakani State Hospital, Department of Psychiatry, Kars, Turkey

E-mail address: [ykivrak21@gmail.com](mailto:ykivrak21@gmail.com)

### ABSTRACT

**Objective:** Aripiprazole is an antipsychotic used not only for schizophrenia, bipolar disorder but also in some depression and anxiety disorders. Aripiprazole has dopamine D2 partial agonism characteristics, serotonin 5-HT<sub>1A</sub> partial agonism, and 5-HT<sub>2A</sub> antagonism characteristics.

### KEYWORDS

Antipsychotics; aripiprazole; chromosomes; clastogenic effect; mutagenic

Insomnia, tremor, akathisia, nausea, and vomiting are the most frequently observed side effects of them. The only partial dopamine agonist in the treatment of aripiprazole schizophrenia is suggested as an option to be considered in patients who cannot tolerate long-term antipsychotics due to weight gain, sedation, and extrapyramidal symptoms. As far as we know, cell killer, mutagenic, and destructive effects on chromosome structure and cell division mechanisms of Aripiprazole on human are unknown.

**Methods:** We have prepared human peripheral blood lymphocytes cultures to evaluate the cytotoxic and the genotoxic effects. We administered distilled water as a negative control, mitomycin c, and aripiprazole at doses of 0.4, 0.8, 1.2, 1.6, and 2 µg / ml as a positive control for 24 hours for each of the prepared cultures. In human lymphocytes chromosomes, in addition to the aberration proportions, mitotic activity rates, micronucleus frequency and the nuclear division index and the nuclear cytotoxic division index, we also defined apoptotic and necrotic cells.

**Results:** When the dose of Aripiprazole (0.4, 0.8, 1.2, 1.6, and 2 µg/ml) increases the rate of fracture and other chromosome aberrations are also increasing. However, the mitotic index reduces ( $r=0.98$ ) depending on the dose. Aripiprazole increases the MN frequency, reduces the division index and also causes apoptosis and necrosis. There is a positive correlation between the dosage of Aripiprazole and the number of necrotic cells ( $r=0.96$ ) together with apoptotic cell count ( $r=0.41$ ).

**Conclusions:** Aripiprazole warned the formation of chromosome aberrations. However, this increase is not as much as in the MMC which is the positive control. The results of the study show that aripiprazole (0.4, 0.8, 1.2, 1.6, 2 µg / ml) has in vitro clastogenic potential in human lymphocyte chromosomes. There is a certain relation between the MN frequency the apoptotic cell. Here, it can be inferred that aripiprazole causes the necrotic cell death more than the apoptosis does. Aripiprazole may have mutagenic and destructive effects on chromosome structures and cell division mechanisms of humans. The development of in vivo studies to examine these issues may be useful.

[Abstract:0610][Autism]

## The patterns of psychotropic drug use in cases diagnosed with autism spectrum disorder

Ipek Percinel Yazici and Kemal Utku Yazici

Firat University School of Medicine, Department of Child and Adolescent Psychiatry, Elazig, Turkey

E-mail address: [ipek.pr@hotmail.com](mailto:ipek.pr@hotmail.com)

### ABSTRACT

**Objective:** In this study, we aimed to evaluate the drug-use characteristics of children diagnosed with autism spectrum disorder (ASD) followed up at the Firat University School of Medicine's Child and Adolescent Psychiatry Outpatient Clinic.

**Methods:** The files of the patients who presented to our outpatient clinic between January 2016 and September 2017 and diagnosed with ASD were examined retrospectively. The data were analysed using the SPSS 22 for Windows.

**Results:** A total of 311 cases diagnosed with ASD were detected. Gender distribution was observed as: 32.5% ( $n=101$ ) girls and 67.50% ( $n=210$ ) boys. The mean age of the cases was  $7.54 \pm 4.31$  ( $7.54 \pm 4.52$  of the girls,  $7.53 \pm 4.22$  of the boys). The proportion of the cases younger than 6 years of age was 53.37% ( $n=166$ ), and the mean age  $4.19 \pm 1.30$ . In all of the cases, the proportion of the cases received special education was 91.6% ( $n=285$ ). A total of 199 cases (64.0%) had a comorbid psychiatric disorder. Attention-deficit hyperactivity disorder, intellectual disability, depression, anxiety disorder, and obsessive-compulsive disorder were found in 25.41% ( $n=79$ ), 46.90% ( $n=146$ ), 10.30% ( $n=32$ ), 7.70% ( $n=24$ ), and 3.90% ( $n=12$ ) of the cases with ASD, respectively. The rate of the medication use in all cases was 68.8% ( $n=214$ ). Irritability was the most common target symptom requiring drug. The most commonly prescribed drug group was atypical antipsychotics ( $n=120$ ), and the most commonly prescribed antipsychotics were risperidone and aripiprazole. Other drugs used were typical antipsychotics ( $n=7$ ), psychostimulants ( $n=47$ ), atomoxetine ( $n=26$ ), selective serotonin reuptake inhibitors ( $n=56$ ), mirtazapine ( $n=5$ ), clomipramine ( $n=3$ ), mood stabilizer ( $n=7$ ), melatonin ( $n=7$ ), and omega-3 ( $n=6$ ); 43.90% ( $n=94$ ) of cases that used medication reported side effects. The most common side effects observed in the cases were sedation, appetite change, weight gain, and irritability. The most common side effect that required drug discontinuation was sedation ( $n=8$ ). The rate of the medication used in the cases younger than 6 years was 57.2% ( $n=95$ ), the most commonly prescribed group of drug was atypical antipsychotics ( $n=65$ ) and the most frequent target symptom that required drug use was irritability. In this group, the rate of

### KEYWORDS

Aripiprazole; autism spectrum disorder; children; psychopharmacology; risperidone

the side effect was 48.4% ( $n=46$ ), and the most common side effect required treatment discontinuation was sedation ( $n=7$ ).

**Conclusions:** Recognition of the drug-use pattern of ASD cases followed by child and adolescent mental health outpatient clinics is considered to be important in terms of clinical practice of physicians. It is known that pharmacological treatment in addition to special education used in the presence of target symptoms and comorbid conditions affects positively the level of social adaptation and efficacy of special education for the patients. It is thought that the knowledge of the drug patterns of cases with ASD, especially those younger than 6 years is important in terms of to start on time and not to delay the drug treatment when necessary.

[Abstract:0611][Other]

## Pediatric trichotillomania and parental alexithymia: a case-control study

Deniz Argüz Çıldır<sup>a</sup> and Aylin Özbek<sup>b</sup>

<sup>a</sup>Department of Child And Adolescent Psychiatry, Tepecik Research and Training Hospital, Izmir, Turkey; <sup>b</sup>Department of Child and Adolescent Psychiatry, Dokuz Eylul University School of Medicine, Izmir, Turkey

E-mail address: [deniz.argz@yahoo.com](mailto:deniz.argz@yahoo.com)

### ABSTRACT

**Objective:** This study aims to explore parental alexithymia of paediatric trichotillomania in comparison with healthy controls.

**Methods:** Participants were 31 cases of trichotillomania and 32 healthy controls aged between 4–17 years. Severity of trichotillomania was assessed by the Clinical Global Impression - Severity Scale (CGI-S). Toronto Alexithymia Scale (TAS-20) was used to measure alexithymia scores of parents. TAS-20 has subscales such as difficulty describing feelings (TAS-1), difficulty identifying feeling (TAS-2), and externally oriented thinking (TAS-3).

**Results:** TAS-20 total scores, TAS-1 scores (difficulty describing feelings), and TAS-2 scores (difficulty identifying feeling of parents) were significantly higher in the case group than in the control group ( $p=0.002$ ;  $p=0.001$ ;  $p=0.003$ , respectively). Additionally CGI-SI scores were positively correlated with total scores of TAS-20 ( $p=0.000$ ) and CGI-SI scores also correlated with scores of all subscales of TAS-20 ( $p=0.000$ ;  $p=0.004$ ;  $p=0.0084$ , respectively). Ordinal logistic regression analysis revealed that parental alexithymia level significantly predicted severity of trichotillomania disease measured by CGI-SI ( $p=0.003$ ).

**Conclusions:** As we know, there has been no study about the association between trichotillomania and parental alexithymia. Parental emotional experience should be considered carefully in cases of trichotillomania.

### KEYWORDS

Alexithymia; emotion; regulation; parenting; trichotillomania

[Abstract:0617][Other]

## Association between severity of suicidal intent/behaviour and psychopathology in adolescent suicide attempters

Ayçin Darıcı Sümer<sup>a</sup>, Esra Çöp<sup>a</sup>, Duygu Bilgili<sup>a</sup>, Müge Şahin<sup>a</sup>, Gülser Şenses Dinç<sup>a</sup>, Özlem Hekim<sup>a</sup>, Emine Dibeek Mısırlıoğlu<sup>b</sup>, Funda Kurt<sup>b</sup>, Zeynep Göker<sup>a</sup> and Özden Üneri<sup>c</sup>

<sup>a</sup>Department of Child and Adolescent Psychiatry, Ankara Pediatric Hematology Oncology Training and Research Hospital, Ankara, Turkey;

<sup>b</sup>Department of Pediatrics, Ankara Pediatric Hematology Oncology Training and Research Hospital, Ankara, Turkey; <sup>c</sup>Department of Child and Adolescent Psychiatry, Ankara Yıldırım Beyazıt University, Ankara, Turkey

E-mail address: [aycindarici@gmail.com](mailto:aycindarici@gmail.com)

### ABSTRACT

**Objective:** Suicide, the second leading cause of death among 12–25-year-olds, is a significant public health problem. It is crucial to understand the risk and vulnerability factors of suicide to prevent suicide attempt and decrease recurrence risk. Our study, association between severity/intent of suicidal behaviour and psychiatric symptoms, risk factors, treatment of adolescents who attempted suicide were examined.

### KEYWORDS

Adolescent; suicide; suicidal intent; suicidal behaviour; treatment



**Methods:** Adolescents who were admitted to a training and research hospital in a one-year period due to a suicide attempt were included. Socio-demographic Data Form including suicide risk factors, Suicidal Intent Questionnaire (SIQ), Suicidal Behaviours Questionnaire (SBQ), Strengths and Difficulties Questionnaire (SDQ) were used in data collection. Psychiatric disorders of adolescents were evaluated by Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS).  $P < 0.05$  was accepted as statistically significant. Ethical board approval was given by Ethics Committee of Yenimahalle Research and Training Hospital.

**Results:** A total of 56 suicide attempters were evaluated including 49 (87.5%) girls and 7 (12.5%) boys. The most common method of suicide attempt was self-poisoning with drugs ( $n = 53$ , 94.6%). The majority of the attempters were in 15–16 ( $n = 36$ , 64.3%) age group; 19.6% of suicide attempters were at the 11th grade and 16.1% were at distance education high school. The majority of cases were low socio-economic status ( $n = 47$ , 83.9%). The most common suicidal behaviour was impulsive ( $n = 52$ , 92.9%) and 82.1% were first attempters. Academic stress and relationship problems were major precipitating factor of suicide attempt. A known psychopathology was present in 44.6% of the cases before suicide attempt and 37.5% of all were on psychiatric medication treatment. According to K-SADS, 76.8% of adolescents had at least one psychiatric disorder and 46.4% ( $n = 26$ ) were diagnosed with major depressive disorder. Medication was started to 48.2% of adolescents; 94.6% of the cases accepted the recommended treatment.

Suicide attempters who had a psychiatric disorder according to KSADS and of these who were put on medication treatment had higher scores on SBQ ( $z = -2.613$ ,  $p = 0.009$ ;  $z = -2.726$ ,  $p = 0.006$ , respectively). Similarly, the SIQ score of suicide attempters who were put on medication treatment is significantly higher ( $t = -2.937$ ,  $p = 0.005$ ). But SIQ scores were not statistically significantly different between suicide attempters with and without psychiatric diagnosis ( $p > 0.05$ ). There was a positive correlation between total score of SIQ and emotional problems subscale score of parent SDQ scale ( $r = 0.372$ ,  $p < 0.05$ ). Also there was a positive correlation between total score of SIQ and total score, conduct problems and hyperactivity scores of adolescent SDQ scale ( $r = 0.495$ ,  $p < 0.05$ ;  $r = 0.299$ ,  $p < 0.05$ ;  $r = 0.296$ ,  $p < 0.05$ , respectively).

**Conclusions:** Our findings revealed that suicide attempt is more frequent in girls than in boys and relationship problems, academic stress, low socio-economic status are important risk factors. Surprisingly, parents indicated that the severity of suicide intention increased as adolescents' emotional problems increased while adolescents have linked suicidal intent severity with behavioural problems. In our study, almost all of the cases accepted the recommended treatment after suicide attempt. In fact, it can be thought as help cry in adolescents who are attempting suicide.

[Abstract:0619][Other]

## Psychosexual stages of development and its relationship with depression and anxiety

Yüksel Kıvrak

Kafkas University School of Medicine, Department Psychiatry, Kars, Turkey

E-mail address: [ykivrak21@gmail.com](mailto:ykivrak21@gmail.com)

### ABSTRACT

**Objective:** Circumcision is one of the oldest and most common surgical procedures. The effect of the age of circumcision on adult sexual function has been evaluated but the effect of the psychosexual stage at the time of circumcision on adult depression and anxiety is not known. The aim of the study was to determine the Beck Depression and Beck Anxiety scores in adults who had been circumcised during various psychosexual stages.

**Methods:** The data of a total of 228 randomly selected male university students were evaluated. The sample was divided into five subgroups as 0–1.5, 1.5–3, 3–6, 6–12, and 12 years according to age at circumcision. The depression and anxiety scores were determined for each subject with the Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI) Scale. The mean scores of each group were also determined. The Kruskal–Wallis test was used to compare the depression and anxiety scores between the groups.

**Results:** The depression and anxiety mean values were 116.94 and 118.25 for the first group, 116.97 and 96.31 for the second group, 110.46 and 105.59 for the third group, 108.21 and 105.60 for the fourth group, and 113.8 and 125.2 for the fifth group, respectively. No statistically significant differences were found between the depression and anxiety scores of the study groups ( $p > 0.05$ ).

**Conclusions:** Our results showed that the psychosexual stage at the time of circumcision had no effect on adult depression and anxiety.

### KEYWORDS

Circumcision; anxiety; depression; Freud; psychosexual stages

[Abstract:0622][Sleep disorders]

## The socio-demographic data of sleep laboratory at the eastern Anatolian region of Turkey

Yüksel Kıvrak<sup>a</sup> and İbrahim Yağcı<sup>b</sup><sup>a</sup>Kafkas University School of Medicine, Department Psychiatry, Kars, Turkey; <sup>b</sup>Kars Harakani State Hospital, Department of Psychiatry, Kars, TurkeyE-mail address: [ykivrak21@gmail.com](mailto:ykivrak21@gmail.com)

### ABSTRACT

**Objective:** Sleep is quite important for continuation of life. It can affect both physical and psychological health and also sociological health can be affected adversely by sleep problems. Respiratory disorders are among of the pathologies which can affect sleep. Obstructive Sleep Apnoea Syndrome (OSAS) is one of the most important respiration disorders which cause both mortality and morbidity. Because of that, it is very important to recognize this disease. The most reliable diagnosis of OSAS is made by sleep laboratory consisting polysomnography. Sleep laboratories are found at only specific centres. To the best of our knowledge, our sleep laboratory is the first centre established at the Caucasus Region. We aimed to evaluate patients retrospectively who were referred to our sleep laboratory centre.

**Methods:** We scanned randomly selected patient files at our sleep laboratory centre.

**Results:** Of patients, 55.6% were male and 44.4% of patients were female; 26.7% of patients were found normal, 16.7% of the patients had diagnosed as mild OSAS, 20% of the patients had diagnosed as moderate OSAS, and 36.7% of the patients had diagnosed as severe OSAS; 24% of the male subjects were normal, 18% of the males were mild, 18% of the males were moderate, and 40% of the males were severe OSAS. In female subjects, these percentages were 30%, 15%, 22.5%, and 32.5% for the normal, mild, moderate, and severe OSAS, respectively. For normal patients for OSAS, 50% of them were male and 50% of them were female. For mild OSAS group, these percentages were 60% for men and 40% for women; 50% of the moderate OSAS patients were male and 50% of the moderate OSAS patients were female. For severe OSAS group, 60.6% of them were male and 39.4% of them were female.

**Conclusions:** Our results showed that OSAS disease is found in both male and female populations, but OSAS can be seen in male subjects more frequently. We think that our presentation can contribute to literature because of it being the first study about this topic at the Caucasus Region.

### KEYWORDS

Sleep disorders; obstructive sleep apnoea; polysomnography; psychiatry; epidemiology

[Abstract:0624][Sleep disorders]

## Sleep latency, sleep efficiency, and hemogram

Yüksel Kıvrak<sup>a</sup>, Eray Atalay<sup>b</sup>, İrem Yıldırım<sup>c</sup>, İbrahim Yağcı<sup>d</sup> and Ali İnaltekin<sup>a</sup><sup>a</sup>Kafkas University School of Medicine, Department Psychiatry, Kars, Turkey; <sup>b</sup>Kafkas University School of Medicine, Department Internal Medicine, Kars, Turkey; <sup>c</sup>Kafkas University School of Medicine, Department of Neurology, Kars, Turkey; <sup>d</sup>Kars Harakani State Hospital, Department of Psychiatry, Kars, TurkeyE-mail address: [ykivrak21@gmail.com](mailto:ykivrak21@gmail.com)

### ABSTRACT

**Objective:** Sleep covers an important part of life; nevertheless, many people do not know the importance of this situation. Obstructive sleep apnoea (OSAS) is an overlooked important sleep disorder causing morbidity and mortality. OSAS is the most frequent reason for sleep laboratory referral at various centres. Sleep laboratories are found only at specific centres, but hemogram assays can be found in nearly every health establishment. In this study, we aimed to examine the relationship between hemogram, sleep latency, sleep efficiency, and abnormal respiration event index.

**Methods:** We evaluated retrospectively files of the patients who were referred to sleep laboratory.

**Results:** The relation between sleep latency and mean corpuscular volume (MCV), mean cell haemoglobin (MCH), and red cell distribution width (RDW) is found significant. There is no significant relation between sleep latency, white blood cell count (WBC), red blood cell (RBC), haemoglobin (Hgb), haematocrit (HCT), mean cell haemoglobin concentration (MCHC), neutrophil (Neu), lymphocyte (Lym), basophil (Bas), eosinophil (Eus), procalcitonin (PCT), mean platelet volume (MPV), platelet distribution width (PDW), platelet (Plt) and sedimentation. There is a significant relation between sleep efficiency and hct,

### KEYWORDS

Hemogram; obstructive sleep apnoea; polysomnography; sleep efficiency; sleep latency

sedimentation. There were also relationships between the WBC, RBC, Hgb, MCV, MCH, MCHC, RDW, Neu, Lym, Bas, Eus, PCT, MPV, PDW, and Plt.

**Conclusions:** This study shows that there can be a relationship between sleep latency, sleep efficiency, and some of the hemogram parameters. But it is not possible to infer causality from this study. We think that it is appropriate to make controlled prospective studies on this topic. We think that our results contribute to both clinicians working on sleep disorders and first- and second-level clinicians of healthcare system.

[Abstract:0633][Psychosomatic Medicine and Liaison Psychiatry]

## Effect of coping strategies and social support on hope in patients with chronic kidney disease: a comparative study with healthy controls

Bengü Yücens<sup>a</sup>, Vahap Ozan Kotan<sup>b</sup>, Nihal Özkayar<sup>c</sup>, Fatih Dede<sup>d</sup>, Rabia Nazik Yüksel<sup>e</sup>, Şenol Bayram<sup>e</sup>, Zeynep Kotan<sup>f</sup> and Erol Göka<sup>e</sup>

<sup>a</sup>Afyon Kocatepe University Medical Faculty, Department of Psychiatry, Afyonkarahisar, Turkey; <sup>b</sup>Başkent University School of Medicine, Department of Psychiatry, Ankara, Turkey; <sup>c</sup>Hitit University School of Medicine, Department of Nephrology, Çorum, Turkey; <sup>d</sup>Ankara Numune Research and Training Hospital, Department of Nephrology, Ankara, Turkey; <sup>e</sup>Ankara Numune Research and Training Hospital, Department of Psychiatry, Ankara, Turkey; <sup>f</sup>Dr Abdurrahman Yurtaslan Ankara Oncology Training and Research Hospital, Department of Psychiatry, Ankara, Turkey

E-mail address: [dr.bengubaz@yahoo.com](mailto:dr.bengubaz@yahoo.com)

### ABSTRACT

**Objective:** The patients with chronic kidney disease (CKD) have to cope with various characteristics of the disease, and experience psychiatric problems in this process. Identifying the coping strategies that they use in adapting themselves to the disease and their level of hope may provide valuable information to improve treatment plan and the response to treatment. This study aimed to evaluate the CKD patients in terms of their hope levels, coping strategies, depression and anxiety levels, and perceived social support levels, to make a comparison with healthy controls, and also to identify these parameters' relationship to the socio-demographic data and to each other.

**Methods:** A total of 98 grade 3 or 4 CKD patients and 85 healthy controls were included in the study. The participants were administered a socio-demographic data form, the Herth's Hope Scale, the COPE Inventory, Multidimensional Perceived Social Support Scale (MSPSS) and Hospital Anxiety Depression Scale (HADS).

**Results:** Whereas no statistically significant difference was found between the CKD patients and healthy controls in terms of using problem-focused, emotion-focused and non-functional coping strategies, the CKD group was found to use religious coping strategies more often than the healthy ones. It was seen that the anxiety and depression level had a negative and the perceived social support had a positive and significant effect on the level of hope in CKD patients; however, the levels of hope do not vary according to age, sex, occupation, level of education, and grade of the disease.

**Conclusions:** CKD increases the frequency of depressive symptoms in people whereby it affects the hope levels and the strategies used to cope with problems. Psychiatric evaluation of the patients with CKD play an important role in increasing the compliance of treatment to existing disease and planning the treatment methods such as dialysis, renal transplantation to be encountered in the later period. The clinician may help the patients more effectively to cope with chronic illnesses by identifying the patient's coping strategies and the associated sources of personal and social support.

### KEYWORDS

Chronic kidney diseases; depression; end-stage renal disease; hope; social support

[Abstract:0656][Neuroscience: Neuroimaging-Genetics-Biomarkers]

## Retinal nerve fibre layer thickness in children with autism spectrum disorder

Abdullah Bozkurt<sup>a</sup>, Gökçe Nur Say<sup>b</sup>, Berkan Şahin<sup>c</sup>, Miraç Barış Usta<sup>d</sup>, Merve Kalyoncu<sup>b</sup>, Muazzez Aydın<sup>b</sup> and Cansu Çobanoğlu<sup>b</sup>

<sup>a</sup>Konya Training and Research Hospital, Konya, Turkey; <sup>b</sup>Ondokuz Mayıs University School of Medicine, Department Psychiatry, Samsun, Turkey; <sup>c</sup>Iğdır Hospital, Iğdır, Turkey; <sup>d</sup>Samsun Training and Research Hospital, Samsun, Turkey

E-mail address: [abdullahbozkurt87@hotmail.com](mailto:abdullahbozkurt87@hotmail.com)

**ABSTRACT**

**Objective:** Investigations into the aetiology of autism spectrum disorder (ASD) found abnormalities associated with neurogenesis and neuronal migration defects. Retinal nerve fibre layer (RNFL) thickness is derived from the central nervous system with retinal receptors, ganglion cells, glial support cells, and axons, and RNFL examination may be useful for evaluation neurodevelopmental disorders. In our study, we aimed to explore the relationship between RNFL thickness with symptom severity and clinical features in children having ASD, and also to determine the differences in RNFL thickness by comparing them with the healthy subjects.

**Methods:** The study group diagnosed with ASD consisted of 40 children between 7 and 12 years with a normal intelligence level who were admitted to the paediatric psychiatry clinic. The control group consisted of 40 healthy children without any psychiatric disorders, matched with the study group in terms of age and gender. Autism Behaviour Checklist (ABC) and Childhood Autism Rating Scale (CARS) were used to evaluate ASD symptoms. RNFL thickness of two groups was then measured in both eyes using OCT.

**Results:** In our study, temporal, temporal superior, nasal superior, temporal inferior, and global RNFL thicknesses were found to be significantly decreased in the ASD group. In the ASD group, correlation analysis showed negative correlation between temporal RNFL thickness and CARS total scores. Negative correlations were found between nasal superior RNFL thickness and CARS total scores, ABC sensory subscales, and ABC total score. Negative correlation was found between nasal and nasal inferior RNFL thickness and ABC social score subscales.

**Conclusions:** The results of this study showed that the RNFL thickness measured by OCT in ASD group was significantly thinner than the control group; also, there was a negative correlation between ASD symptom severity and RNFL thickness. The RNFL thickness may project abnormal brain development seen in ASD. There are still insufficient data available for the clinical use of RNFL thickness, and further studies are needed to be used as a biomarker for ASD.

**KEYWORDS**

ASD; children; OCT; retinal nerve fibre layer thickness; white matter

[Abstract:0664][Other]

## Thiol/disulphide balance as a new oxidative marker in patients with major depressive disorder

Özlem Beğinoğlu and Mehmet Asoğlu

Harran University School of Medicine, Department of Psychiatry

E-mail address: [mehmetasoglu@gmail.com](mailto:mehmetasoglu@gmail.com)

**ABSTRACT**

**Objective:** Although major depressive disorder (MDD) is the most common mental health problem and its lifetime prevalence is 16%, it constitutes a disease group which is still challenged by physicians. The lack of specific laboratory tests and imaging methods may be among the causes of diagnostic difficulties like many other psychiatric disorders. In this study, we aimed to examine the thiol/disulphide parameters, a molecule that has not previously been studied in depressed patients. We also aimed to examine whether these molecules, which could be measured in clinical practice, could be used as a differential marker.

**Methods:** Forty-five patients who presented to the psychiatry outpatient clinic of the Harran University School of Medicine Education and Research Hospital between June 15, 2016 and December 12, 2016 and who were diagnosed with MDD according to DSM-5 criteria were included in the study after their informed consent was obtained. Sociodemographic Data Form, Beck Depression Scale (BDS) and Clinical Global Impression - Severity Scale (CGI-S) were used in the diagnosis and evaluation stages. The thiol/disulphide balance in blood samples collected from patients and volunteers was studied with automated measurement method which a newly developed by Erel and Neselioglu.

**Results:** There were no significant differences between the groups in terms of age, gender, and body mass index (BMI). There were significant differences between depression and control groups in terms of native thiol, total thiol, disulphide/native thiol, disulphide/total thiol, native thiol/total thiol. There were no significant differences in disulphide levels between the groups. There were no significant correlations between total thiol, native thiol, disulphide, disulphide/native thiol, disulphide/total thiol, native thiol/total thiol levels of patients and depression severity, assessed by Beck Depression Inventory. There was no correlation between the duration of the symptoms of the patients and total thiol, native thiol, disulphide/native thiol, disulphide/total thiol, and native thiol/total thiol. There was a negative correlation between the duration of the symptoms of the patients and disulphide level.

**Conclusions:** In our study, which was the first study in this field, we found that the thiol/disulphide balance in the depression was impaired. In the light of the more extensive studies

**KEYWORDS**

Disulphide; dynamic thiol/disulphide balance; major depressive disorder; oxidative stress; thiol

to be done in this regard, it can be said that the thiol/disulphide balance parameters may be candidates to be biomarkers which can be diagnosed in depression.

[Abstract:0779][Dementia syndromes]

## Characteristics of bone density loss among subjects with dementia in comparison with non-demented subjects

Bahadır Bilgin Basgoz<sup>a</sup>, Semra Ince<sup>b</sup>, Umut Safer<sup>a</sup> and İlker Tasci<sup>a</sup>

<sup>a</sup>Health Sciences University Gulhane School of Medicine, Department of Internal Medicine, Ankara, Turkey; <sup>b</sup>Health Sciences University Gulhane School of Medicine, Department of Nuclear Medicine, Ankara, Turkey

E-mail address: [bbbaskoz@gmail.com](mailto:bbbaskoz@gmail.com)

### ABSTRACT

**Objective:** Dementias and osteoporosis are both common at the same ages. There is some evidence, albeit weak, that women with osteoporosis are under increased risk of developing dementia. In the present case-control study, we examined whether older adults having dementia had different bone density measures and osteoporosis prevalence compared to non-demented individuals.

**Methods:** Non-institutionalized participants aged 65 years or older with and without dementia were enrolled prospectively. Dementia work-up included both the neuropsychological testing and clinical assessment. Dementia types included were Alzheimer's disease, vascular dementia, or the mixt type. Bone density was determined by DEXA at spine, femur total, or femoral neck region.

**Results:** In a sample of 363 participants, 93 subjects had the diagnosis of dementia and 270 were non-demented (Mean age:  $78.7 \pm 6.0$  vs.  $78.3 \pm 5.1$ ,  $p > 0.05$ ; female: 62.4% vs. 62.4%,  $p > 0.05$ ). Controlled for age and gender, demented patients had similar bone density at spine with that of non-demented individuals [ $F(1,358) = 0.83$ ,  $p = 363$ ]; but, femur total bone density [ $F(1,359) = 10.26$ ,  $p = 0.001$ ] and femur neck bone density [ $F(1,359) = 15.21$ ,  $p < 0.001$ ] were lower. Based on a  $T$  score  $\leq -2.5$  at either site, prevalence of osteoporosis in demented group was higher, but the difference was not significant (40.9% vs. 31.1%,  $p = 0.086$ ). However, when only a femoral neck  $T$  score  $\leq -2.5$  was taken as diagnostic, prevalence of osteoporosis in the demented group was significantly higher (25.8% vs. 15.9%,  $p = 0.034$ ). Low bone mass (LBM) ( $T$  score  $\leq -1.0$  at either region) was found significantly more frequent in the demented group (95.7% vs. 84.8%,  $p = 0.006$ ). The strongest difference in LBM was observed between  $T$ -scores obtained at femur neck. The distribution of  $T$ -scores across normal, osteopenia, and osteoporosis stages was significantly different between demented and non-demented subjects (4.3% vs. 15.2%, 54.8% vs. 53.7%, and 40.9% vs. 31.1%,  $p = 0.014$ ).

**Conclusion:** The present study showed evidence of lower bone mass in patients with dementia which was prominent in the femur region. According to  $T$ -score based definitions, demented individuals had true diagnosis of osteoporosis only at femur neck. The results suggest that patients with osteoporosis may be under increased risk of developing hip fractures due to worse femur bone density.

### KEYWORDS

Dementia; fractures; older adults; osteopenia; osteoporosis