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ORAL RESEARCH PRESENTATIONS

[Abstract:0029][Neuroscience: Neuroimaging-Genetic Biomarkers]

Serum oxytocin levels in patients with depression, social anxiety disorder, generalized anxiety disorder, and panic disorder diagnosed according to DSM-5 criteria compared with healthy controls

Taha Can Tuman¹, Osman Yildirim², Abdulkaki Irmak³, Ali Evren Tufan⁴, Mehmet Akif Camkurt⁵

¹Department of Psychiatry, Izzet Baysal University, School of Medicine, Bolu, Turkey

²Department of Psychiatry, Abant Izzet Baysal University, School of Medicine, Bolu, Turkey

³Osmaniye State Hospital, Osmaniye, Turkey

⁴Department of Child and Adolescent Psychiatry, Abant Izzet Baysal University, School of Medicine, Bolu, Turkey

⁵Afsin State Hospital, Afsin, Kahramanmaraş, Turkey

e-mail address: tahacantuman@hotmail.com

OBJECTIVE: Oxytocin is a hormone which effects are well known on birth, breastfeeding, and bonding between mother and child and couples. In addition, oxytocin is called endogenous anti-stress, antidepressants, and anxiolytic hormone and reported that it would increase in stressful situations in order to reduce the hyperactivity of the HPA axis and amygdala, facilitate to coping with stress and improve social functioning. In this study, it was aimed to compare serum oxytocin levels with depression, generalized anxiety disorder, panic disorder, panic disorder with agoraphobia, and social anxiety disorder patients with healthy controls.

METHODS: Total 176 participants admitted to the Abant Izzet Baysal University School of Medicine psychiatry outpatient clinic between October 2013 to January 2015, between 18-65 years of age, without any psychotropic drugs, 50 patients (25 male, 25 female) diagnosed with major depression, 25 patients (9 male and 16 female) diagnosed with generalized anxiety disorder, 31 patients (14 male and 17 female) diagnosed with social anxiety disorder, 40 patients (17 male and 23 female) diagnosed with panic disorder, and 30 healthy control (13 male and 17 female) were included in this study. Hamilton Depression Rating Scale (HRDS), Hamilton Anxiety Scale (HAM-A), Perceived Stress Scale (PSS), and Anxiety Sensitivity Index (ASI-3) were administered to all groups. In addition, Generalized Anxiety Disorder 7-Item Test (GAD-7) was administered to patients with generalized anxiety disorder, Panic Disorder Severity Scale (PDSS) was administered to patients with panic disorder, and Liebowitz Social Phobia Scale (LSPS) was administered to patients with social anxiety disorder. Serum levels of oxytocin from all of the study groups included in the study was measured by ELISA.

RESULTS: In patients with depression, serum oxytocin levels were significantly lower compared with the healthy controls. In patients with generalized anxiety disorder, social anxiety disorder, and panic disorder with agoraphobia serum levels of oxytocin were significantly higher compared with the healthy controls. In patients with panic disorder, serum levels of oxytocin tended to be higher but not statistically significant difference compared with the healthy controls. In depressed patients with anxiety subtype, serum levels of oxytocin were significantly higher compared with melancholic and atypical subtypes of the depressed patients and the healthy controls. In patients with panic disorder with agoraphobia, serum levels of oxytocin were significantly higher compared with the panic disorder patients without agoraphobia. There were no significant differences in oxytocin levels between generalized and performance subtype of generalized anxiety disorder patients.

CONCLUSIONS: In this study, lower oxytocin levels in depressed patients may be a factor contributing to the development of depression, because of oxytocin is thought to increase the production of serotonin, dopamine and norepinephrine and activate BDNF production, MAP kinase pathway, and phosphorylation of CREB. Increased oxytocin levels in patients with anxiety subtype of depression, generalized anxiety disorder, panic disorder with agoraphobia, and social anxiety disorder may be a compensatory mechanism to reduce anxiety and stress or oxytocin receptor dysfunction.

Keywords: oxytocin, generalized anxiety, depression, agoraphobia, social anxiety

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[Abstract:0042][ADHD]

Perceived expressed emotion and self-esteem in adolescents with attention deficit hyperactivity disorder

Halit Necmi Ucar¹, Safak Eray², Pinar Vural¹

¹Department of Child and Adolescent Psychiatry, Uludag University, Bursa, Turkey

²Department of Child and Adolescent Psychiatry, Van Training and Research Hospital, Van, Turkey

e-mail address: halitnecmiucar@hotmail.com

OBJECTIVE: Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder characterized with a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development. ADHD causes serious social, academic and psychological deficiencies in all stages of child and adolescent development. These deficiencies may result in deterioration in interpersonal relations and relations within the family. The study aims at discussing self-esteem and perceived expressed emotion in adolescents with the ages of 12–16 who are diagnosed with ADHD.

METHODS: Included in the study are 41 cases who are diagnosed with ADHD (according to DSM-IV) after the clinical interviews carried out by a child psychiatrist on individuals who presented to Uludag University Medical School Child and Psychiatry Outpatient Clinic in the time period between April 1st, 2015 and July 1st, 2015. Their parents are also included in the study. The control group consists of students from schools run by Bursa Provincial Directorate for National Education who are matched with the sample group in terms of age and gender, presented voluntarily, are not diagnosed with any physical or mental disorder and directed to our outpatient clinic by the psychological counseling and guidance divisions of respective schools. Criteria for exclusion from both groups are determined as the following: uneducated parents, inadequate mental capacity to fulfill the scale and presence of any medical illnesses such as accompanying epilepsy. Adolescents whose total intelligence segment points are equal or above 85 according to the Revised Wechsler Intelligence Scale for Children (WISC-R) form are included in the study. 41 adolescents with ADHD diagnosis and their parents were examined and matched 35 adolescents who as control group and their parents. Schedule for Affective Disorders and Schizophrenia for School-Age Children, Present and Lifetime Version (K-SADS-PL) Turkish Version, Rosenberg Self-Esteem Scale, Shortened Level of Expressed Emotion Scale (SLEES), and WISC-R are used.

RESULTS: In order to analyze the hypothesis “the level of self esteem in adolescents with ADHD is different from their peers”, the middle and low self-esteem individuals and high self-esteem individuals are sub-grouped as “non high self-esteem” and “high self-esteem” respectively. Then, the groups are compared to each other in terms of the distribution of these variables in them. That the 46.3% of the adolescents in the sample group have non-high self-esteem level is statistically significant when compared to the control group. Means of the SLEES by groups were: $X=63.2$, $SD=15.3$ for the patient group and $X=53.9$, $SD=12.3$ for the control group. There were significant differences in the perceived express emotion scores by groups ($t=2.900$) ($p=0.005$). And there were also significant differences in the subscale of SLEES scores by groups.

CONCLUSIONS: The results of this study suggest that self-esteem in the adolescents with ADHD is significantly low and that their perceived expressed emotion is significantly high. This is noticeable for it draws attention to the psycho-social dimension in the clinical evaluation of the children with ADHD.

Keywords: attention deficit hyperactivity disorder, self-esteem, perceived expressed emotion

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[Abstract:0070][Psychopharmacology]**The determinants of benzodiazepines prescription at discharge from psychiatric inpatient clinic in Turkey: a retrospective chart review**[Okan Ekinci](#)

Department of Psychiatry, Usak State Hospital, Usak, Turkey
e-mail address: drokanekinci@yahoo.com

OBJECTIVE: To our knowledge, there is only one study specifically examined the factors related to prescribing benzodiazepines (BDZ) at discharge from psychiatric service while many studies have examined administering benzodiazepines to patients currently on an inpatient unit. In addition, it is important to note that this is the first study examining BDZ prescription patterns at discharge in Turkey. The present study aims to explore the clinical and demographic determinants associated with receiving a benzodiazepine (BDZ) at discharge from a psychiatric clinic. We hypothesized that BDZ prescribing at discharge would be significantly related to specific demographic and clinical features rather than prescriber effects.

METHODS: This retrospective chart review comprised records of patients who were hospitalized between January 2014 and January 2016. We have carefully reviewed the patient's electronic medical records, detailed discharge summaries, the prescriptions at discharge and nurse observation charts to provide the required data. We considered the first diagnosis listed in the chart as the principal diagnosis. We also used patient's length of stay and the number of hospitalization as the markers of clinical severity and chronicity, respectively. Other clinical variables included in this analysis were the presence of suicidal idea and/ or attempt and violent behavior, sleep difficulties, and the presence of comorbidities in the last hospitalization. Sociodemographic variables collected were age, gender, employment status, and the place of residence. Descriptive statistics characterized patient demographics and prescription frequency. Multivariate logistic regression was used to assess determinants associated with a benzodiazepine prescription at discharge.

RESULTS: Of the 1017 patients analyzed in this study, 32.9% (n=335) received a BDZ at discharge and 67.1% of the patients (n=682) did not receive BDZ. Two groups did not differ on gender, place of residence, occupation status and the number of hospitalization. There were significant associations between diagnosis, length of hospitalization, violent behavior, suicidality, age, sleep difficulties, and BDZ prescription at discharge. Consistent with our study hypotheses, the analysis resulted in three factors predicting BDZ prescription at discharge: age, the presence of suicidal idea or attempt, and primary diagnosis. We found that there is no impact of prescriber effects on receiving a BDZ at discharge.

CONCLUSIONS: Our results indicate that benzodiazepines are being prescribed frequently at discharge, and while prescribing appears to be influenced by diagnosis, suicidality, and age. Prescribers need to be alert to potential confounders that may be affecting prescribing practices. This is the first study to investigate the possible factors related to BDZ prescribing in Turkey. More research is needed to determine what factors lead psychiatrists to prescribe benzodiazepines and what can be done to reduce the frequency of untoward benzodiazepine prescriptions.

Keywords: benzodiazepine, suicide, age, diagnosis, prescription

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[Abstract:0082][ADHD]**The sociodemographic features, comorbid psychiatric diagnosis, and treatment of children diagnosed attention deficit and hyperactivity disorder: a preliminary study**[Serkan Karadeniz](#), [Mutlu Karakus](#), [Sema Kandil](#)

Department of Child and Adolescent Psychiatry, Karadeniz Technical University, Trabzon, Turkey
e-mail address: drmutlukarakus@gmail.com

OBJECTIVE: Attention deficit and hyperactivity disorder (ADHD) is the most frequent neuropsychiatric disorder in children which causes impairment in psychosocial functioning such as problems in social relationships and academic failures at school. Its prevalence is thought to be 5.9-7.1% in studies made in recent years. In various studies it was reported that additional psychiatric diseases aggravate ADHD's symptoms and affect the response to treatment negatively. The aim of this study was to examine the sociodemographic features,

comorbid psychiatric conditions, and treatment in 6–18 years children with ADHD.

METHODS: One hundred and sixty four children and adolescents who were followed-up at the Child and Adolescent Psychiatry Outpatient Clinics of Karadeniz Technical University School of Medicine between 1 January 2014 and 31 June 2014, diagnosed with ADHD according to DSM-5, and had at least three outpatient visits and did not meet the exclusion criteria are included in this study.

RESULTS: It was found that 120 (73.2%) of the 164 ADHD patients are boys and 44 (26.8%) of them are girls. 69 (42.1%) of these patients are attention deficiency (AD) subtype of ADHD (ADHD group A), 81 (49.4%) of them are combined subtype of ADHD (ADHD group C) and 14 (8.5%) of them are hyperactivity-impulsivity predominant subtype of ADHD (ADHD group H). The mean age of ADHD-A group is 10 ± 3.020 , ADHD-C group is 9.05 ± 2.484 and ADHD-H group is 8.71 ± 2.091 . If we examine for the comorbid psychiatric diagnosis, the ratio of having at least one comorbid psychiatric conditions is 75.6% (124). 42% (69) of the patients have one comorbid condition with ADHD, 31.7% (52) of the patients have two comorbid conditions with ADHD and 1.8% of the patients have three comorbid conditions with ADHD. 24.4% of the sample have no psychiatric comorbid condition. Oppositional defiant disorder is the most frequent psychiatric comorbid condition overall the sample. It is the comorbid condition in 43 (26.2%) patients. In 41 (25%) patients behavioral disorders, in 36 (22%) patients anxiety disorder, in 22 (13.4%) patients nocturnal enuresis, in 17 (10.4%) patients tic disorders and in 10 (6.1%) patients depressive disorder is the comorbid condition. In our sample 164 of the patients have a treatment for ADHD. 107 (65.3%) of these patients use long-acting methylphenidate, 33 (20.1%) of these patients use short-acting methylphenidate, 14 (8.5%) of them use atomoxetine for ADHD treatment. 10 (6.1%) patients have no treatment.

CONCLUSIONS: Children with the ADHD accompanied with comorbid psychiatric conditions are possibly more resistant to treatments. In these patients both ADHD and comorbid psychiatric conditions must be treated effectively. The higher ratio of comorbid conditions in our study sample suggests that both diagnosis must be treated.

Keywords: ADHD, comorbidity, sociodemographic

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[Abstract:0090][Mood disorders]

Decreased high mobility group box1 (HMGB1) level in the patients with bipolar disorder during the euthymic period

Suleyman Demir¹, Mahmut Bulut¹, Ozlem Demirpençe², Abdullah Atli¹, Mehmet Cemal Kaya¹, Mehmet Gunes¹, Bunyamin Sevim³, Yasin Bez⁴

¹Department of Psychiatry, Dicle University, Diyarbakir, Turkey

²Department of Biochemistry, Cumhuriyet University, Sivas, Turkey

³Department of Biochemistry, Dicle University, Diyarbakir, Turkey

⁴Department of Psychiatry, Marmara University, Istanbul, Turkey

e-mail address: drsuleymandemir@hotmail.com

OBJECTIVE: Bipolar disorder (BD) is an important psychiatric disorder with chronic course characterized by repetitive episodes of mania and depression, with a whole life frequency of 0.45% to 6.5%. The etiology of BD has not been fully elucidated. Additionally, the neurochemical mechanisms underlying the residual symptoms in the euthymic state of BD have not been defined. Previous reports have examined the relationship between neurotrophic factors and inflammatory markers and the euthymic period of BD. High mobility group box1 (HMGB1), was reported to be a late-mediator of inflammation and its role in DNA reconstruction and cell differentiation has been reported before. Our aim in the present study was to evaluate the levels of HMGB1 in BD patients during the euthymic state, and to determine the relationship between inflammatory markers and neurotrophic factors in the pathophysiology of BD in euthymic state.

METHODS: The study groups included 40 patients with BD in the euthymic state and 40 healthy subjects. CGI-SI, YMRS, and HRDS were administered after the participants provided informed consents. Blood was collected for biochemical analyses.

RESULTS: The HMGB1 level in the patient group was determined to be significantly lower compared with the control group ($p < 0.05$).

CONCLUSIONS: The present study is the first to evaluate HMGB1 levels in euthymic patients with BD. HMGB1 levels were found to be lower in the patients with BD during the euthymic period, when compared with the controls. This result may be an indicator of the illness existing at the biochemical level during the euthymic period of BD. We also suggest that the low HMGB1 level during the euthymic period of BD may prevent the initiation of the healing process. Future prospective studies conducted with a larger number of cases, and investigating HMGB1 levels together with the BDNF and inflammatory markers during all episodes (mania, depression, and euthymic) of BD will help to clarify the roles of inflammation and neuroplasticity in BD etiology.

Keywords: bipolar disorder, euthymic period, HMGB1, inflammation, neuroplasticity

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[Abstract:0097][OCD]

Metacognitions and automatic thoughts in obsessive compulsive disorder

Ilkay Keles Altun¹, Evrim Ozkorumak Karaguzel²¹Department of Psychiatry, Kanuni Training and Research Hospital, Trabzon, Turkey²Department of Psychiatry, Karadeniz Technical University, Trabzon, Turkey

e-mail address: dr.ilkeykeses@gmail.com

OBJECTIVE: Obsessive Compulsive Disorder (OCD) is a chronic psychiatric disorder that causes loss of functions. Lee and Kwon analyzed obsessions in two separate groups as autogenous and reactive obsessions, based on their studies on cognitive theory. In this study, OCD patients with autogenous and reactive obsessions were compared with healthy control group in terms of differences in their metacognitions and automatic thoughts. Also anxiety and depression levels of the autogenous and reactive groups were analyzed in terms of their gender, educational level, place of living, family story, and received treatments.

METHODS: The patients who presented to the Karadeniz Technical University (KTU) Medical School psychiatry outpatient clinic and were diagnosed with Obsessive-Compulsive Disorder (OCD) between the dates of February 2014- December 2014 and healthy control subjects were recruited. The participants were kept informed about the study and they provided written consents. The ethical committee approval was obtained with number 2014/6 of KTU Clinical Research Committee. Patients (n=32) (autogenous group) who have primary obsessions defined as autogenous (patients those have aggressive, sexual and religious obsessions according to the Yale Brown Obsessive Compulsive Scale (Y-BOCS) symptom checklist) and patients (n=34) (reactive group) who have obsessions defined as reactive (patients who have contamination, symmetry, somatic, doubt and etc. obsessions according to the Y-BOCS symptom checklist). Sociodemographic Data Form, SCID-I, Y-BOCS (Yale-Brown Obsessive-Compulsive Scale), MCQ-30 (Metacognition Questionnaire), ATQ (Automatic Thoughts Questionnaire), BAI (Beck Anxiety Inventory), and BDI (Beck Depression Inventory) were all administered. Autogenous, reactive and healthy control groups were compared with each other by using their sociodemographic data, Y-BOCS, MCQ-30, ATQ, BDI, BAI points.

RESULTS: There was no difference between the study groups in terms of age, marital status, educational status, income level, and place of living. Male gender of the autogenous group was significantly higher than the reactive group. Aggressiveness is the most common obsession in the autogenous group and contamination is the most common obsession in the reactive group. All the scale points of the total OCD group were significantly higher than the healthy control group. However, "uncontrollability and danger" and "need to control thoughts" MCQ subscales and "isolation" ATQ subscale were significantly higher in the autogenous group than reactive group.

CONCLUSIONS: As a result, there is a significant difference between autogenous and reactive groups in terms of metacognitions and automatic thoughts. Results of this study shows that suggested classification could be useful for determining the subtypes of OCD. Also this subtype classification of OCD seems important for understanding the evolution of OCD, defining its symptoms and giving the most appropriate treatment.

Keywords: autogenous obsessions, reactive obsessions, obsessive-compulsive disorder, metacognitions, automatic thoughts

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[Abstract:0103][Others]

Belief level of sexual myths in patients with premature ejaculation

Mehmet Gunes¹, Hasan Akcali¹, Onur Dedeoglu², Aslihan Okan Ibiloglu¹, Suleyman Demir¹¹Department of Psychiatry, Dicle University, Diyarbakir, Turkey²Department of Urology, Dicle University, Diyarbakir, Turkey

e-mail address: m63gunes@gmail.com

OBJECTIVE: The aim of this study was to determine level of belief in sexual myths, anxiety, and depression levels and to identify sexual problems in the cases of premature ejaculation (PE) which is the most common sexual dysfunction in men.

METHODS: This study included 100 patients who presented to the Dicle University School of Medicine, Department of Psychiatry and Urology between 2014 September and 2015 December and meet premature ejaculation criteria of DSM-5 and 70 healthy controls. Sociodemographic data form, Hamilton Depression Rating Scale (HDRS), Hamilton Anxiety Rating Scale (HAS), Arizona Sexual Experience Scale (ASES)-Men form, and Sexual Myths Evaluation Form were administered to participants. Data were analyzed by SPSS 18.0 statistical software.

RESULTS: In the study, rate of belief in sexual myths in PE patients was found significantly higher than healthy controls. In the PE cases, education time less than 10 years, the level of income under 1500 TL, the presence of comorbid hypoactive sexual desire and the presence of comorbid erectile dysfunction were found to be statistically significant factors that increase the level of belief in sexual myths. In the PE cases myths approved at the highest rate were 18 (85%), 19 (80%), 6 (79%), 13 (79%), 27 (78%), 16 (76%), 12 (75%), 11 (74%), 22 (73%), 1 (70%) and 4 (69%). In the control group, myths approved at the highest rate were 18 (84%), 19 (81%), 16 (73%), 13 (71%), 10 (69%) and 22 (69%). In the PE cases, HDS ($p=0.000$), HAS ($p=0.000$), ASES ($p=0.000$) scores were statistically significantly higher than the control group. In the loss of sexual desire in men with comorbid ASES score was statistically significantly higher ($p=0.000$). PE patients accompanying with ED, ASES ($p=0.001$) and HDS ($p=0.040$) scores were found statistically significantly higher than the patients accompanying with ED. Hospital admissions between 1 year in 90% of PE patients with first complaint, It was determined that 43% of the 5 years. 84% of the PE cases, 94% control group have acquired first sexual information from their friends. 24% of the PE patients initially applied for non-medical healers (muskaci, sheikh has done on herbal medicines). 72% of those applied to their first application to physicians other than psychiatrists. According to DSM-5 PE scale; 44% of patients had mild, 32% had moderate, and 24% had severe PE. In the PE cases, 25 (25%) PE sexual desire, 53 (53%) were accompanied by complaints of erectile dysfunction (ED). In 58 cases (58%), sexual desire and/ or ED were accompanied complaints.

CONCLUSIONS: In healthy controls compared to individuals with a high level of PE belief in sexual myths and it has been shown to be associated with this high level to the low level of education. To extinguish the myths prevalent in our society and patients with PE, a healthy sexual life, age appropriate sex education, and providing individuals the right resources are all required. We think that should false information resources should be legally blocked.

Keywords: premature ejaculation, sexual myths, sexuality, depression, anxiety

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[Abstract:0107][Mood disorders]

Alexithymia in adolescents with depression: an 8-week follow-up study

Salih Gencoglan¹, Leyla Akguc²

¹Department of Child and Adolescent Psychiatry, Yuzuncu Yil University, School of Medicine, Van, Turkey

²Department of Psychiatry, Mardin State Hospital, Mardin, Turkey

e-mail address: sgencoglan@gmail.com

OBJECTIVE: The aim of this study is to prospectively exhibit the correlation between the fluoxetine treatment in adolescents with depressive disorder and alexithymia.

METHODS: Sixty adolescents at the age of 14 to 17 (37 females/23 males; average age \pm SD: 15.25 \pm 1.03) who were diagnosed with depression according to DSM-IV and had not previously received any treatment were included in the study. With respect to diagnosis and exclusion criteria, the cases were administered the Schedule for affective disorders and schizophrenia for school-age children - Present and lifetime version (K-SADS-PL). The adolescents were also administered the Sociodemographic Data Form, Beck Depression Inventory (BDI), Hamilton Depression Rating Scale (HDRS), Toronto Alexithymia Scale (TAS-26), Positive and Negative Affect Schedule (PANAS) and Buss-Perry Aggression Questionnaire (BAQ). Eight weeks after the initiation of the fluoxetine treatment, the adolescents were re-evaluated using the same scales.

RESULTS: The baseline TAS-26 average score of the patients included in the study was 67.98 \pm 14.42 and the average follow-up TAS-26 score was 67.86 \pm 11.93. According to the TAS-26 cut-off score, 37 baseline cases (61.7%) and 40 follow-up cases (66.7%) were determined to be alexithymic. No significant difference in the alexithymia scores of the baseline and follow-up cases was found ($p>0.05$). Following the 8-week fluoxetine treatment, significant decrease was observed in the BDI, HDRS, PA, NA, and BPAQ scores of the adolescents ($p=0.01$). A significant positive correlation was found between the baseline TAS-26 scores and the BDI, HDRS, and NA scores ($r=0.439$, $p=0.000$, $r=0.389$, $p=0.002$, $r=0.528$, $p=0.000$, respectively), however no correlation was found with PA ($p>0.05$). A positive correlation was found between both the baseline and follow-up TAS-26 scores and the BPAQ scores ($r=0.528$, $p=0.000$, $r=0.457$, $p=0.000$, respectively).

CONCLUSIONS: As a result of the fluoxetine treatment, apathetic recovery phenomenon was observed in these patients as it was detected that the alexithymia level continued at a similar rate. It was concluded that the emotional effects of the SSRI antidepressant drugs might have contributed to the alexithymia level of these patients.

Keywords: alexithymia, adolescent, fluoxetine, depressive disorder

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[Abstract:0114][Psychopharmacology]**Side effects of haloperidol decanoate and paliperidone palmitate: a retrospective comparative study**

Memduha Aydin, Bilge Cetin Ilhan, Mahmut Selcuk, Ibrahim Eren

Department of Psychiatry, Konya Training and Research Hospital, Konya, Turkey

e-mail address: memduhaaydin@yahoo.com

OBJECTIVE: Long-acting antipsychotic medication injections are thought to help improve medication adherence in the acute phase, in the long-term maintenance and in the prevention of relapse of schizophrenia. Long-acting injectable (LAI) first generation antipsychotics (FGAs) have been available for decades but their use has been limited in part due to their propensity to cause extrapyramidal side effects (EPS). Haloperidol decanoate (HD) is one of the depot FGAs and paliperidone palmitate (PP) is one of the depot second generation antipsychotics (SGAs) available in clinical practice. Both of them can be administered monthly and does not require refrigeration. We aimed to compare the side effects of LAI haloperidol decanoate (HD) and LAI paliperidone palmitate (PP) in the patients who were followed in our clinic.

METHODS: The patients who were consecutively admitted to psychiatry clinic of Konya Training and Research Hospital between January 2015 and January 2016 with the diagnosis of schizophrenia under the treatment of HD and PP every month for at least 6 months were reviewed retrospectively. We excluded the patients using any other antipsychotic medication, using mood stabilizer medication, having diabetes mellitus, and cardiovascular disease. A sociodemographic and clinical data form arranged by researchers filled from reports of patients with schizophrenia including the Barnes Akathisia Scale (BAS) and Simpson Angus Scale (SAS), serum prolactin levels and metabolic parameters including fasting blood glucose, total cholesterol, LDL cholesterol, HDL cholesterol, and triglycerides.

RESULTS: Forty-nine (22 female, 27 male) patients were included in the study, 20 patients (9 female, 11 male) were on HD (50 mg-300 mg monthly) treatment, 29 patients (13 female, 16 male) were on PP (50 mg-150 mg monthly) treatment. There were no significant differences between the HD group and the PP group in the terms of age (mean age HD vs PP: 39.30 vs 37.48). Patients were well-stabilized on their optimal dose LAIs. There were no statistically significant differences between those treated with PP and HD in levels of fasting blood glucose, total cholesterol, LDL cholesterol, and triglycerides; mean HDL cholesterol levels were significantly lower in HD group than PP group ($p=0.02$). Mean serum prolactin levels on HD group ($15.76 \mu\text{g/L} \pm 8.23 \mu\text{g/L}$) were lower than mean serum prolactin levels on PP group ($57.21 \mu\text{g/L} \pm 30.61 \mu\text{g/L}$), difference was statistically significant ($p<0.001$). There were no statistically significant differences in ratings of BAS and SAS for each group.

CONCLUSIONS: In patients with schizophrenia, treatment with PP compared with HD did not result in a significant difference in metabolic parameters and extrapyramidal system side effects, but the results of our study do not rule out the possibility of meaningful differences. Results pointing the lower serum prolactin levels in HD group may be meaningful for treatment of patients suffering from hyperprolactinemia. The results of this comparative study are consistent with previous reports in the literature that have not found large differences in the side effects of newer and older antipsychotics. Well-conducted and reported randomized trials are needed to assess the side effects depot antipsychotic preparations for people with schizophrenia in terms of clinical, social, and economic outcomes.

Keywords: haloperidol decanoate, paliperidone palmitate, side effects

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[Abstract:0115][Neuroscience: Neuroimaging-Genetic Biomarkers]**Retinal nerve fiber layer and macular thickness in schizophrenia**Pinar Topcu Yilmaz¹, Bilge Cetin Ilhan², Memduha Aydin²¹Department of Ophthalmology, Ankara Numune Training and Research Hospital, Ankara, Turkey²Department of Psychiatry, Konya Training and Research Hospital, Konya, Turkey

e-mail address: blglhn@gmail.com

OBJECTIVE: A significant change in retinal nerve fiber layer (RNFL) thickness has been reported in patients with various neurological disorders, suggesting that this technique may also be useful in other neuropsychiatric disorders. We aimed to compare the RNFL and macular thickness in patients with schizophrenia and healthy controls using spectral-domain optical coherence tomography (SD-OCT). SD-OCT is a simple, noninvasive imaging technique for assessing possible differences due to neurological and neuropsychiatric disorders.

METHODS: Patients who had been consecutively admitted to the psychiatry inpatient clinic of Konya Training and Research Hospital between December 2014 and May 2015 with the diagnosis of schizophrenia were included in this prospective, cross-sectional study. Fifty-nine schizophrenic patients and 36 age and sex matched healthy volunteers were assessed with clinical interventions and psychometric tests. We excluded the patients with schizophrenia having diabetes mellitus, hypertension, cardiovascular disease, visual defects, mental retardations, and smoking. A sociodemographic and clinical data form prepared by researchers was completed from the files of patients and clinical interventions. Patients with schizophrenia were evaluated for severity of the disorder, clinical features on admission with Positive and Negative Syndrome Scale (PANSS), the Clinical Global Impression Severity Scale (CGI-S), and the Mini-Mental State Examination (MMSE). The RNFL thickness and macular thickness measurements obtained by SD-OCT were compared between the groups.

RESULTS: The mean age of 59 patients included in this study was 34.64 years and the mean age of 36 healthy controls was 32.08 years, mean illness duration was 10.33 year, mean total PANSS score was 75.18 and mean CGI-S score was 3.88. Macular thickness in the superior inner (350.97±16.51 vs 341.81±16.35), nasal inner (348.97±17.53 vs 340.25±17.55), inferior inner (345.5±17.59 vs 335.47±16.92), temporal inner (333.28±17.96 vs 321.97±19.96) and temporal outer (289.14±14.10 vs 281.29±15.31) segments were significantly decreased in patients with schizophrenia. However; RNFL thickness measurements between the two groups were similar. No significant correlation was found between illness duration, PANSS score, CGI-S score and RNFL thickness and macular thickness measurements.

CONCLUSIONS: In the literature, the findings of studies on RNFL thickness and macular volume are inconsistent in patients with schizophrenia. The main confounders for these inconsistencies were reported as inadequate resolution of the optical coherence tomography method to find subtle changes, influences of drug treatment, illness durations, recent or non-recent illness episodes. The findings from this study suggest that macula thickness measurements are reduced in patients with schizophrenia but does not indicate any significant change in RNFL. Our contradictory findings may be related with confounders reported in the literature. Further studies are needed to determine the potential application of OCT as a useful tool for the diagnosis and monitoring the progression of this disease.

Keywords: macular thickness, retinal nerve fiber layer, schizophrenia

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[Abstract:0127][ADHD]

Serum adrenomedullin and nitric oxide levels of attention deficit hyperactivity disorder diagnosed patients and their role in etiopathogenesis

Yetiş İslidar¹, Gulsen Unlu², Ahmet Buber², Burcu Cakaloğlu², Hayrani Eren Bostancı³, Hulya Aybek⁴, Hasan Herken⁵

¹Department of Child and Adolescent Psychiatry, Dr. Sami Ulus Children's Hospital, Ankara, Turkey

²Department of Child and Adolescent Psychiatry, Pamukkale University, School of Medicine, Denizli, Turkey

³Department of Pharmaceutical Basic Sciences, Cumhuriyet University, Faculty of Pharmacy, Sivas, Turkey

⁴Department of Biochemistry, Pamukkale University, School of Medicine, Denizli, Turkey

⁵Department of Psychiatry, Pamukkale University, School of Medicine, Denizli, Turkey

e-mail address: yetonline@hotmail.com

OBJECTIVE: Attention deficit hyperactivity disorder (ADHD) is a common childhood-onset neuropsychiatric disorder that affects the child's quality of life. Adrenomedullin (ADM) is a molecule that composed of 52 amino acids within the peptide structure. Nitric oxide (NO) is either a well known neurotransmitter of the central nervous system or one of the reactive oxygen species. ADM and NO have a regulatory role together in many organs and systems. Current data has showed that ADM and NO may have a role in the pathogenesis of certain psychiatric disorders such as schizophrenia, autism and affective disorders. In the present study, it is aimed to assess the role of ADM and NO in the etiopathogenesis of ADHD.

METHODS: Thirty patients between 6 and 16 years-old who have been firstly ADHD diagnosed and 30 healthy volunteer controls were included in the study. All participants were screened for psychiatric disorders by using the Schedule for Affective Disorders and Schizophrenia for School Aged Children, Present and Lifetime Version (K-SADS-PL). The Conner's Parent Rating Scale Short Version (CPRS-48) was filled by parents in for the purpose of supporting the diagnosis. While Enzyme-Linked Immunosorbent Assay (ELISA) method was used for the measurement of ADM, and Spectrophotometer was used for the detection of NO in serum.

RESULTS: As a result of the study serum ADM and NO levels were found significantly lower in the ADHD group ($p < 0.001$). No significant relationship was found between serum ADM and NO levels and CPRS-48 subscale scores for both of the groups ($p > 0.05$); and a positive low correlation was found between serum ADM and NO levels in the patient group ($p < 0.05$).

CONCLUSIONS: To the best of our knowledge, this is the first study that examines ADM levels in ADHD. Previous reports reveal that there

are contradictory findings regarding the relationship between ADHD and NO. These results may indicate a more complex role of NO in ADHD. The etiology of ADHD is not well-known but the reduced activity of the dopaminergic and noradrenergic systems play a crucial role in ADHD pathogenesis. There is also evidence for glutamatergic dysregulation in ADHD. NO has effects on the release of dopamine, norepinephrine and glutamate. So low levels of NO are thought to be related to dopaminergic, noradrenergic and glutaminergic dysfunction in ADHD. Cerebral hypoperfusion and the hypothalamic-pituitary-adrenal (HPA) axis dysfunction in ADHD are reported by numerous studies. ADM and NO have a role in cerebral angiogenesis and perfusion and they have stimulating effect on HPA axis. Lower serum levels of ADM and NO may contribute to cerebral hypoperfusion and HPA axis dysfunction in ADHD. Both ADM and NO have also neuroprotective effects on central nervous system. Lower levels of ADM and NO may not provide adequate neuroprotection in ADHD patients. For a better understanding the role of ADM and NO in ADHD etiopathogenesis, further studies with a larger number of cases are needed.

Keywords: adrenomedullin, attention deficit hyperactivity disorder, nitric oxide

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[Abstract:0129][Mood disorders]

Impacts of the duration and number of electroconvulsive therapy (ECT) sessions on clinical course and treatment of the patients with major depressive disorder

Filiz Izci¹, Yucel Yilmaz², Mehmet Akif Camkurt³, Ebru Findikli⁴, Sumeyye Yasemin Kurtulus Calli², Yagmur Fidan², Engin Emrem Bestepe²

¹Department of Psychiatry, Istanbul Bilim University, School of Medicine, Istanbul, Turkey

²Department of Psychiatry, Erenkoy Resarch and Training Hospital, Istanbul, Turkey

³Afsin State Hospital, Kahramanmaraş, Turkey

⁴Department of Psychiatry, Sutcu Imam University, School of Medicine, Kahramanmaraş, Turkey

e-mail address: filizizci@yahoo.com

OBJECTIVE: The aim of this study is to examine impacts of the duration and number of electroconvulsive therapies on clinical course and treatment of the patients with major depressive disorder.

METHODS: This study included 50 patients, who presented to psychiatry clinic of Erenkoy Mental Health and Neurology Training & Research Hospital for inpatient treatment due to the diagnosis of major depressive disorder and who displayed electroconvulsive therapy (ECT) indication. The patients were administered Hamilton Rating Scale for Depression (HRSD) for pre-ECT period and for 1st and 2nd weeks of ECT, and to Clinical Global Impression (CGI) scale for the period following application of ECT. Total durations of ECT convulsions were recorded. Furthermore, a data form identifying sociodemographic properties, previous ECT history, and current ECT indications of the patients was completed.

RESULTS: The patients were classified by ECT indications as Resistance to Treatment (+): Group I, Suicide Ideation (+): Group II, Refusal to Eat and Drink (+): Group III; and no statistically significant difference was observed among groups in terms of sociodemographic properties, total number of ECT sessions, duration of ECT, and HRSD scores for pre-ECT period and for the 1st and 2nd weeks of ECT ($p > 0.05$). CGI scores checked after each ECT statistically significantly decreased ($p < 0.001$), while the number of patients with decreased CGI scores obtained after application of ECT increased. 45.5% of the patients with ECT history and 84.6% of the patients without any previous ECT history were determined to have gotten into remission ($p < 0.05$).

CONCLUSIONS: According to the data evaluated in this study, we can safely argue that if the patients with major depressive disorder displaying resistance to treatment, refusal to eat and drink, and suicide ideation are allowed to have sufficient number of ECT sessions with sufficient duration. ECT would work as an effective treatment method affecting depression and clinical improvement levels. The fact that the patients with positive ECT history have lower rate of remission as compared to the patients without ECT history made the authors consider the possibility that the disease may have crossed into chronic stage or former ECT sessions may have decreased the favorable response to treatment.

Keywords: depression, duration of ECT, number of ECT sessions, response to treatment

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[Abstract:0132][Dependencies]

The quality of life in patients with opiate dependence: a preliminary study

[Ikbal Inanli](#), Basak Demirel, Ali Metehan Caliskan, Tuba Elmas, Ibrahim Eren

Konya Training and Research Hospital, Konya, Turkey

e-mail address: ikbalcivi@yahoo.com

OBJECTIVE: Opiate dependence is a complex disorder with a chronic relapsing course. Opiate dependence can damage quality of life. Previous studies have found that opiate dependence can damage individuals' physical and mental health, role performance, and social adaptation and can harm psychological health directly or through the effects on interpersonal and role functioning. Dependent patients of quality of life is defined as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns. The concept is very broad, and includes variables related to one's physical health, psychological health, level of independence, social relationships and their relationships to salient features of their environment are influenced by several variables such as psychiatric comorbidity, education, and employment status. Assessments of quality of life are important that both decision of treatment and outcome of treatment. In this study, quality of life patients with opiate dependence in early treatment phase are compared with normal controls.

METHODS: Ninety male patients aged 18-65 with opiate dependence - according to DSM-IV-TR and 70 healthy male controls were included in the study. All patients were evaluated during stabilization phase of buprenorphine-naloxone treatment, and they did not have any withdrawal symptoms, not using opiates during the past two weeks. All participants were administered sociodemographic data form, SF-36, HARS, and HDRS.

RESULTS: All scale scores of SF-36 of dependent patients were significantly higher than the healthy controls, and HARS and HDRS scores of patients were significantly higher than the healthy controls.

CONCLUSIONS: In this study indicated that dependent patients' quality of life in early treatment phase is worse than controls. Quality of life is defined as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns and includes variables related to one's physical health, psychological health, level of independence, social relationships and their relationships to salient features of their environment. Therefore, assessment of quality of life at every stage of treatment is important for a successful treatment.

Keywords: Opiate dependence, quality of life, treatment

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[Abstract:0134][Dependencies]

The impact of affective temperaments on opiate dependence and addiction severity

[Ikbal Inanli](#)¹, Mehmet Er², Halil Ibrahim Ozturk³, Mehmet Arslan⁴, Ali Metehan Caliskan¹, Suleyman Ozbek¹, Basak Demirel¹, Ibrahim Eren¹

¹Konya Training and Research Hospital, Konya, Turkey

²Ahi Evran University, Training and Research Hospital, Kirsehir, Turkey

³Sirnak State Hospital, Sirnak, Turkey

⁴Uzunkopru State Hospital, Tekirdag, Turkey

e-mail address: ikbalcivi@yahoo.com

OBJECTIVE: Substance use disorders (SUD) are characterized by adaptive and long-lasting behavioral patterns. The comorbidity of bipolar disorder and SUDs is frequently reported in the literature, and people with both disorders usually show a more severe course of the illness and poorer treatment outcome. The cause of this high comorbidity rate has not been clearly established, and the relationship is probably bidirectional. Opiate dependence is a complex disorder with a chronic relapsing course. Previous works have been done on the correlation among temperament, personality, and opiate dependence, and it has been suggested that cyclothymic and irritable traits could represent the temperamental profile of opiate dependence. In this study, affective temperaments of patients with opiate dependence without other psychiatric disorders are compared with normal controls to evaluate the impact of temperament traits on the overall risk for opiate dependence and addiction severity.

METHODS: Eighty male patients with opiate dependence according to DSM-IV-TR without other psychiatric patients and 71 healthy male

controls were included in the study. All participants who age of 18-65 years were administered to evaluate for sociodemographic data form, TEMPS-A. All patients were evaluated during stabilization phase of buprenorphine–naloxone treatment, and were administered addiction severity index (ASI).

RESULTS: The comparison of affective temperaments between patients and controls found that no differences were observed on depressive and hyperthymic scales and scores of cyclothymic, irritable, and anxious scale of the patients were significantly higher than controls. According to results of logistic regression analysis, it was found that to be predictors of risk for dependence; cyclothymic and irritable traits, suicide attempt, marital and work status on opiate dependence. According to results of generalized linear models, it was found that depressive traits significantly increased ASI subscales scales including legal, family and psychiatric in the patients.

CONCLUSIONS: The present study show that opiate dependent may mainly be distinguished from controls according to cyclothymic, irritable and anxious traits and cyclothymic and irritable temperament traits may be an important risk factor for the occurrence of opiate dependence. These results support the hypothesis that temperament traits may predispose the development of psychiatric disorders including opiate dependence and consistent with the literature. When also considering frequency comorbidity of bipolar disorder and SUDs, these results supports that biological disposition with the same genetic underpinnings could share by these disorders. Previous studies have reported that affective temperaments may represent a clinical expression of proneness of problematic and recurrent substance use. We interestingly found that depressive traits increased addiction severity, have no information about similar studies in the literature. Minor but systematic mood instability may be a crucial feature for clinicians to handle for purposes of protection, adherence, and relapse-prevention strategies. Consequently, cyclothymic and irritable temperament traits may affect predisposition to the development of opiate dependence and adversely affect the course of the disease and depressive temperament traits which may consequently increase addiction severity.

Keywords: opiate dependence, temperament, comorbidity

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[Abstract:0136][Stress and related conditions]

Childhood abuse history an effect on the adult psychiatric disorders

Aslihan Okan Ibiloglu, Abdullah Atli, Mahmut Bulut, Suleyman Demir, Aytekin Sir

Department of Psychiatry, Dicle University, School of Medicine, Diyarbakir, Turkey

e-mail address: aslihanokan@gmail.com

OBJECTIVE: Childhood trauma may have been consisted of abuse and neglect. The most important separating factor of each other, abuse is an active behavioral form whereas neglect is a passive form. These stressful life events are reported that long-term effecting on neurobiological system of brain. Childhood traumas are deeply influencing social and interpersonal relationships, especially in later years of life. Therefore, individual's sense of identity, self-esteem, and coping skills which are recognized as important risk factors for psychiatric disorders can all constitute a negative impact on an individual's mental health. Unexplained physical symptoms are more common in adults who had childhood abuse history. In the present study, our main hypothesis is that childhood abuse rates of psychiatric patients who were admitted to our outpatient psychiatry clinic for psychiatric symptoms would be higher than the healthy controls. Therefore, negative consequences as more psychiatric symptoms and incompatible coping skills would be observed in adult life period.

METHODS: Firstly, in the patients who presented to our outpatient psychiatry clinic for the psychiatric symptoms were questioned about to childhood traumatic experiences by experienced psychiatrists. After then, it was examined whether the relationships to between the childhood abuse history, incompatible coping skills, comorbid psychiatric disorders, and alexithymia. Adults with substantiated cases of psychiatric symptoms (between the age of 18 to 65 years) from 2014 to 2015 (n=150) were matched based on age, and gender, with a group of healthy persons (n=100).

RESULTS: The rates of any childhood trauma (49.3%) in patients group was significantly higher than control group (32.0%). Childhood sexual abuse was not declared by the none of our participants. Childhood trauma including abuse and neglect history were associated with an increased risk for current psychiatric disorders especially personality disorders, PTSD, and MDD in psychiatric patients (p<0.05). Additionally, suicide rates in the patient and control groups who were exposed to childhood trauma were significantly higher than remaining participants who were not exposed to childhood trauma.

CONCLUSIONS: Psychiatric disorders are prevalent in patients with childhood trauma. In many studies, some psychiatric symptoms with somatization (conversion of emotional state to physical complaints) has been reported to be the most common presentation of stressful

life events and emotional distress, worldwide as in Turkey. Unfortunately, the exact pathophysiological bases of these relationships are not completely understood. Therefore, quick diagnosis and appropriate management of associated psychiatric disorders along with targeted treatments of childhood trauma may lead to a better outcome in these traumatized patients.

Keywords: childhood traumatic experiences, adult, comorbidity, psychiatric disorders, alexithymia, coping skills

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[Abstract:0148][Cultural psychiatry]

Impact of the psychiatry clerkship on the fifth year medical students' attitudes towards mental illness, psychiatric medications, and their plans to pursue psychiatry as a career choice in residency training

[Kerem Senol Coskun¹](#), [Hasan Erbay²](#)

¹Department of Psychiatry, Afyon Kocatepe University, School of Medicine, Afyonkarahisar, Turkey

²Department of History of Medicine and Ethics, Afyon Kocatepe University, School of Medicine, Afyonkarahisar, Turkey

e-mail address: kscoskun@hotmail.com

OBJECTIVE: Mental illness stigma exists in general public, medical professionals, and trainees including medical students. Furthermore, mental illness stigma is a significant barrier to treatment. The psychiatry clerkship can play an important role in influencing students' attitudes. Generally, it gives an opportunity to contact with patients with mental illness for the first time. This study explored the impact of the psychiatry clerkship on the fifth year medical students' attitudes towards mental illness, psychiatric medications, and considering psychiatry as a career in residency.

METHODS: The Beliefs toward Mental Illness Scale (BMI), the Beliefs about Medication Questionnaire (BMQ) (adapted for psychiatric medications), a questionnaire on demographic data, and an another questionnaire for personal relationship with patients with mental illness and thoughts about their social life were completed by 114 fifth year students (M5) at Afyon Kocatepe University School of Medicine. The questionnaires were performed at the beginning of the psychiatry clerkship training firstly and at the end of a 4-week clerkship secondly. The students' consideration about psychiatry as a possible career choice and its relationship between the socio-demographic factors were also assessed. Kolmogorov-Smirnov Test was used for normality testing of the data. The one-way analysis of variance (ANOVA) with Tukey's test, paired sample t-test, Wilcoxon Signed Ranks test and McNemar's test were used for statistical analyses. A p-value of less than 0.05 was considered statistically significant. The study was approved by the Local Research Ethics Committee.

RESULTS: After the psychiatry clerkship there was a significant improvement in attitudes towards mental illness as reflected by the total scores on BMI (57.5±12.6 versus 51.8±13.2, p<0.001). According to socio-demographic variables only to be diagnosed before with a psychiatric illness had a positive impact on attitudes towards mental illness at the beginning of the clerkship (p=0.03). The positive changes towards the thoughts about the patients with mental illness on getting a driver's license (p=0.008), voting on elections (p=0.03), undergoing curettage when getting pregnant (p=0.03), and being an important problem for social security (p<0.001) were found at the end. According to the thoughts for personal relationships, the number of students who avoid to speak people with mental illnesses (p<0.001), to be disturbed becoming neighbors (p<0.001) and to work at the same place with them (p=0.001) significantly decreased. No change was found towards marrying the people with mental illness. Both overuse and harm subscales' items of BMQ adapted for psychiatry were positively affected by the clerkship. Although there was not a significant change after the clerkship (p=0.058), percentage of students who would consider psychiatry as a possible career choice for their residency training was higher at the end (39.5% versus 50%, respectively).

CONCLUSIONS: The results of our study suggested that psychiatry clerkship has a positive impact on the fifth year medical students' attitudes towards mental illness, patients with mental illness, and beliefs about psychiatric medications. The trend of students who would consider psychiatry as a possible career choice was positive at the end of the clerkship, but statistically non-significant.

Keywords: stigma, psychiatry clerkship, medical students, mental illness, psychiatric medications

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[Abstract:0158][Mood disorders]**G Protein coupled estrogen receptor 1 (GPER-1) levels of patients with major depressive disorder**

Ebru Findikli¹, Ergul Belge Kurutas², Mehmet Akif Camkurt³, Mehmet Fatih Karaaslan¹, Filiz Izci⁴, Hatice Altun⁵, Huseyin Avni Findikli⁶, Selcuk Kardas¹, Berat Kizildag¹

¹Department of Psychiatry, Sutcuimam University, Kahramanmaraş, Turkey

²Department of Biochemistry, Sutcuimam University, Kahramanmaraş, Turkey

³Department of Psychiatry, Afsin State Hospital, Kahramanmaraş, Turkey

⁴Department of Psychiatry, Bilim University, Istanbul, Turkey

⁵Department of Child and Adolescent Psychiatry, Sutcuimam University, Kahramanmaraş, Turkey

⁶Department of Internal Medicine, Adiyaman University, Adiyaman, Turkey

e-mail address: ebrukanmaz@gmail.com

OBJECTIVE: MDD is one of the most commonly seen major mental health problems. Female sex hormones such as estrogen and progesterone affect the emotions and cognitive functions and are known to cause different behavioral responses to stress in men than female. Estrogen receptors are ER- α - β and Gprotein coupled receptor-1. There are evidences that GPER-1 may play a role in mood disorders. Both male and female rodents express GPER1 in the hypothalamus, pituitary, hippocampal formation, and amygdala. The localization of GPER1 in these brain areas suggests a role in emotional control and regulation of endocrine responses. Moreover, GPER1 expression in cholinergic neurons of then basal forebrain suggests a role in cognitive functions. We aimed to measure recently defined GPER-1 levels in the serum of patients with depression by ELISA method in this study.

METHODS: A total of 46 patients aged 18–50 and newly diagnosed as MDD according to Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) and age and gender matched 42 healthy controls were included in the study. All patients were drug naive. Hamilton Depression Rating Scale (HDRS) was administered to patient and control groups. GPER1, TSH, and PRL levels were measured in blood samples. Commercial ELISA kit (Cloud-Clone Corp., Houston, USA) was used for GPER1 levels.

RESULTS: GPER1 levels was significantly higher in MDD group compared to the control group ($p < 0.001$). According to Spearman's correlation analysis there was a significant positive correlation between HDRS scores and GPER-1 levels ($r = 0.586$ $p = 0.000$).

CONCLUSIONS: These results suggest that Gper-1 may have a role in the pathophysiology of MDD and associates with the severity of depression. Thus, in this context further studies are needed to clarify the effect of estrogen via GPER-1 in MDD and its treatment.

Keywords: estrogen, GPER-1, major depressive disorder

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[Abstract:0172][Schizophrenia and other psychotic disorders]**Adherence to long-acting antipsychotics treatments in patients with schizophrenia: a retrospective analysis**

Rabia Nazik Yuksele¹, Vahap Ozan Kotan¹, Merve Yigit¹, Gamze Erzin¹, Duygu Sahin¹, Guven Ozkaya², Makbule Cigdem Aydemir¹, Erol Goka¹

¹Department of Psychiatry, Ankara Numune Training and Research Hospital, Ankara, Turkey

²Department of Biostatistics, Uludag University, Bursa, Turkey

e-mail address: rabianazik@gmail.com

OBJECTIVE: Long-acting injectable (LAI) antipsychotics are widely used especially in schizophrenia patients with non-adherence. Use of LAI second generation antipsychotics (SGAs) with less side-effect profile compared to LAI first generation antipsychotics (FGAs), has increased considerably in recent years. However, the metabolic side effects of atypical antipsychotics and treatment costs make it difficult to use them in some cases. In practice which LAI-SGAs are more preferred? Which drugs provide a better treatment adherence? We aimed to assess drug selection and the treatment adherence of our patients to LAI-SGAs with this retrospective study.

METHODS: This study was conducted at Ankara Numune Training and Research Hospital's Department of Psychiatry. We reviewed the charts of 603 in patients who were hospitalized in our Psychiatry Clinic between January, 2014 and March, 2015. 280 inpatients were diagnosed with schizophrenia according to the DSM-5 and 56 of these patients were discharged with a LAI-SGAs treatment. Treatment adherence was evaluated with continue/ discontinue or switching of medications during a one year period in psychiatry clinic records.

Factors that may affect adherence were analyzed.

RESULTS: The reason for initiating LAI-SGAs was non-adherence to oral antipsychotics in almost all patients. The average length of stay of patients in hospital was 13.6±6.17 days. 46.5% (n=26) Of the LAI-SGAs treatment given in hospital discharge were typical antipsychotics and 53.6% (n=30) of the LAI-SGAs were atypical antipsychotics (zuclopenthixol decanoate: 32.1% n=18, risperidone consta: 26.8% n=15, paliperidone palmitate: 26.8% n=15, haloperidol decanoate: 14.3% n=8). 92.9% of patients showed adherence to treatment. There were no significant differences between four medication groups in terms of treatment adherence. Among the parameters that may affect the adherence in all medication groups, there was only an inverse correlation between length of stay in hospital and treatment adherence ($p<0.05$).

CONCLUSIONS: Use of LAI-SGAs is an appropriate choice for patients with schizophrenia in case of non-adherence to oral antipsychotics. In our study, there were no significant differences between LAI-SGAs and LAI-FGAs groups in terms of adherence in the first year of the treatment. LAI-FGAs and LAI-SGAs have differences about cost, side effect profile, and application period. Selecting the most appropriate LAI-SGAs treatment and to extend the period of hospitalization can be beneficial for schizophrenia patients.

Keywords: schizophrenia, adherence, treatment, long-acting antipsychotics, long-acting injectable antipsychotics, long-acting treatment

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[Abstract:0183][Cultural psychiatry]

Psychological and sexual effects of circumcision in adult males

Yasin Aydogmus¹, Murat Semiz², Okan Er³, Okan Bas⁴, Irfan Atay⁵, Muhammet Fatih Kilinc⁶

¹Department of Urology, Etimesgut Military Hospital, Ankara, Turkey

²Department of Psychiatry, Gulhane Military Medical Academy, Ankara, Turkey

³Department of Psychiatry, Etimesgut Military Hospital, Ankara, Turkey

⁴Department of Urology, Abdurrahman Yurtaslan Oncology Education and Research Hospital, Ankara, Turkey

⁵Department of Urology, Health Center of Airforce Military Academy, Istanbul, Turkey

⁶Department of Urology, Ankara Training and Research Hospital, Ankara, Turkey

e-mail address: drmuratsemiz@hotmail.com

OBJECTIVE: Circumcision has been performed since ancient times. Ancient depictions show that Australian Aborigines, Incas, Aztecs, Mayas, and particularly ancient Egyptians performed circumcision. Circumcision is performed as a religious ritual in most Muslim and Jewish countries, and it is also frequently performed in Eastern countries. Circumcision has historical, religious, and cultural implications as well as psychological. It was reported that circumcision might have positive effects on mental health, may contribute father-son empathy, and activate masculine drives in children. Although circumcised or non-circumcised individual plays the main role in the psychological aspect of circumcision, other people and particularly the family interfere in this experience. We hypothesized that adult circumcision may change body image and social anxiety of the individuals, and may affect ejaculation time and sexual satisfaction. Our hypothesis is based on the values of circumcision in the Turkish population.

METHODS: A total of 37 men over 18 years old who presented to our clinic for circumcision were included in the study following an ethical committee approval. Individuals with a known psychotic disorder, mental retardation, systemic disorder, erectile dysfunction, congenital penile shape deformity, and previous penile surgery were excluded. The control group consisted of 30 age-matched healthy individuals who had circumcision at childhood. Before circumcision, a psychiatrist examined the individuals included in the study for psychotic disorders and mental retardation and an urologist evaluated them for ejaculation and circumcision. The psychiatrist administered Body Cathexis Scale and Liebowitz Social Anxiety Scale; the urologist administered Premature Ejaculation Diagnostic Tool to the individuals and evaluated them for premature ejaculation (PE). The individuals self-reported Intra-vaginal Ejaculation Latency Times (IELT) of <1 min were approved as premature ejaculation according to McMahon. Medical circumcision was performed under local anesthesia. The patients were discharged from the hospital and called for a follow up 3 months later. Three months after the circumcision, evaluation described in item 2 was administered to the study group. Evaluation described in item 2 was administered to the control group once.

RESULTS: Pre-circumcision body cathexis and social anxiety scores of the study and the control groups showed significant differences. However, post-circumcision scores and control group scores were similar. There were significant reductions between pre- and post-circumcision scores for both body cathexis and social anxiety scales, and also in the mean scores of the items with a sexual content in body cathexis and social anxiety. Pre- and post-circumcision body image and social anxiety were not found different in between the two study groups.

CONCLUSIONS: No studies up to date examined the effects of adult circumcision on social anxiety and body image with sexual evaluation

in males. Our results indicated psychosocial and physical negative effects in adult age when circumcision is not performed in childhood; however, these negative effects can be improved after circumcision even if in adulthood. Also circumcision can improve the sexual satisfaction. Being circumcised contributes to psychosocial and sexual well-being of individuals in adulthood.

Keywords: adult, body cathexis, circumcision, premature ejaculation, psychology, social anxiety

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[Abstract:0187][Psychosomatic medicine-Liaison psychiatry]

Mood and anxiety disorders in patients with abnormal uterine bleeding

Fatih Kayhan¹, Husnu Alptekin²

¹Department of Psychiatry, Selcuk University, Konya, Turkey

²Department of Obstetrics and Gynecology, Mevlana University, Konya, Turkey

e-mail address: drkayhan@yahoo.com

OBJECTIVE: We aimed to investigate the prevalence of mood and anxiety disorders in patients with abnormal uterine bleeding (AUB) and the relationship between mood and anxiety disorders and AUB.

METHOD: Ninety-six consecutive patients with not yet classified AUB based on the PALM - COEIN classification and 94 healthy controls were included in the study. Mood and anxiety disorders were ascertained by means of the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition/Clinical Version.

RESULT: Out of 96 patients, 55 (57.3%) met the criteria for at least one diagnosis of mood and anxiety disorder. The most common psychiatric disorders in patients with AUB were major depression (n=15, 15.6%), generalized anxiety disorder (n=18, 18.8%) and obsessive compulsive disorder (n=22, 22.9%), respectively. Compared with the control group, the prevalence of any psychiatric disorder ($\chi^2=43.52$, $p=0.000$), any mood disorder ($\chi^2=10.37$, $p=0.001$) and any anxiety disorder (Fisher's exact test, $p=0.000$) was higher in patients with AUB. The presence of any mood and anxiety disorder was an independent risk factor for AUB.

CONCLUSION: Mood and anxiety disorders, particularly major depression, generalized anxiety disorder and obsessive-compulsive disorder were frequently observed in patients with AUB.

Keywords: anxiety, depression, abnormal uterine bleeding, menstruation

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[Abstract:0218][Dependencies]

Relation of internalized stigma in heroin dependent patients with treatment motivation, perceived social support, and depression and anxiety levels

Emine Merve Akdag¹, Vahap Ozan Kotan¹, Baise Tikir², Makbule Cigdem Aydemir¹, Ihsan Tuncer Okay¹, Erol Goka¹

¹Department of Psychiatry, Numune Training and Research Hospital, Ankara, Turkey

²Mardin State Hospital, Mardin, Turkey

e-mail address: emervekalyoncu@gmail.com

OBJECTIVE: Internalized stigma is the individual's acceptance of society's negative attitudes for himself and as a result secluding himself from society with negative feelings such as insignificance and shame. Internalized stigma is associated with decrease in compliance to treatment, deterioration in social adaptation, dispiritedness and low self esteem. Internalized stigma is predicted to occur in high rates in substance dependents. In this study, it is questioned how the internalized stigma in heroin addiction differs with sociodemographic and clinical parameters; and it is intended to determine internalized stigma's relation with treatment motivation, perceived social support and depression and anxiety levels.

METHODS: Study is carried out with 166 male outpatients with heroin dependents in Ankara Numune Alcohol and Substance Addiction Treatment and Training Center. Study sample consisted of 145 patients who filled out all of the scales completely. Sociodemographic data form including clinical features, The Internalized Stigma of Mental Illness Scale (ISMI), Treatment Motivation Scale (TMS), Multidimensional

Scale of Perceived Social Support (MSPSS), Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI) are used in the study.

RESULTS: As a result of the study, a high level of internalized stigma was seen in males with heroin dependents. Having 'sense of alienation' was determined to be related with a delay in the application for treatment. It was found out that internalized stigma score was positively correlated with treatment motivation and level of depression and anxiety; while negatively correlated with perceived social support score.

CONCLUSIONS: There is an interaction between internalized stigma and depression (and anxiety), through negative influence of both on the judgement ability of substance dependents. Internalized stigma is remarked as a predictor of depression and a factor both increasing severity of depression and decreasing response to antidepressant treatment. When an individual sees his addiction as the reason of his disturbed perceptions, his motivation to apply for treatment could increase. Frequent discontinuation of treatment period and intermittent substance abuse in clinical practice indicate that treatment motivation of substance dependents seems insufficient for consistent behavioral change. Motivation for behavioral change is a significant indicator for success of treatment. Social support received by the patient is also a significant factor in management of addiction treatment. As perceived social support of substance dependents increases, their internalized stigma is expected to decrease and treatment motivation is expected to increase. Our cross-sectional study is one of the rare studies searching the relationship between internalized stigma, treatment motivation and perceived social support in the literature. Considering the difficulty in the management of heroin dependence, factors such as internalized stigma, treatment motivation, perceived social support, depression, and anxiety are worthwhile to be studied and cause effect relationship in heroin dependence deserves to be revealed more in future studies.

Keywords: heroin, internalized stigma, treatment motivation, social support, depression, anxiety

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[Abstract:0225][Schizophrenia and other psychotic disorders]

Clinical presentation and prognosis in schizophrenia cases with suicide history

[Demet Saglam Aykut¹](#), [Filiz Civil Arslan¹](#), [Evrin Ozkorumak Karaguzel¹](#), [Serdar Karakulukcu²](#), [Ahmet Tiryaki¹](#)

¹Department of Psychiatry, Karadeniz Technical University, School of Medicine, Trabzon, Turkey

²Department of Public Health, Karadeniz Technical University, School of Medicine, Trabzon, Turkey

e-mail address: demetsaglam@hotmail.com

OBJECTIVE: Suicide attempt in the disease period of schizophrenia patients is a serious complication and it is one of the causes of early mortality for these patients.

It has been reported that 40% of patients with schizophrenia had at least one suicide attempt in the course of their illness. Higher suicide risk was shown to be related with depression and low quality of life in studies which examined the clinical variables related with suicide behavior.

The aim of this study is to examine the effects of suicide attempt on clinical presentation by comparing schizophrenic patients with and without suicide in sociodemographic variables, clinical signs, symptoms of depression, quality of life, social functionality, and reported adverse drug reactions.

METHODS: Positive and Negative Syndrome Scale (PANSS), Calgary Depression Scale (CDS), Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q), Social Functioning Scale (SFS), the Udvalg for Kliniske Undersogelse Scale (UKU) were administered to 115 patients with schizophrenia.

RESULTS: 44.3% of patients had at least one suicide attempt. Among sociodemographic variables family history of suicide, smoking, total duration of disease were significantly higher in patients with suicide history than without. Scores of CDS and UKU subscores were significantly higher, quality of life and social occupation in social functionality were significantly lower in patients with a history of suicide. In correlation analyses, CSD was negatively correlated with Q-LES-Q and independency/ Performance subcore of SFI, positively correlation with UKU-Neurological subscore.

CONCLUSIONS: In line with this data, the behaviour of suicide may be suggested to effect clinical presentation and course characteristic of patients with schizophrenia. Additional treatments towards factors that may impact on clinical course and social support programs might be suggested for these patients.

Keywords: schizophrenia, suicide, depression, quality of life

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[Abstract:0228][Autism]

The relationship between iron deficiency parameters and clinical symptoms in children with autism spectrum disorders

[Serkan Gunes, Ozalp Ekinci](#)

Department of Child and Adolescent Psychiatry, Mersin University, Mersin, Turkey
e-mail address: dr_sgunes@hotmail.com

OBJECTIVE: High prevalence of iron deficiency (ID) and iron deficiency anemia (IDA) has been reported in children with autism spectrum disorders (ASD) in many studies. One study showed that 24.1% of children with autism had ID, and 15.5% had IDA. Based on these findings, we compared the hemoglobin, hematocrit, iron, ferritin, MCV and RDW levels of children with ASD with healthy children. In addition, we examined the relationship between these values and clinical symptoms of ASD.

METHODS: The study included children who admitted Mersin University School of Medicine Department of Child and Adolescent Psychiatry in between March, 2015 and October, 2015, who were diagnosed with ASD according to the DSM-5, and who did not have any psychiatric disorders or physical illnesses for healthy controls. Children who had received iron supplementation and who had dietary restrictions were excluded from the study. Children with infection or other inflammatory conditions were also excluded. We used ferritin cutoff value as <10 ng/mL for preschoolers and <12 ng/mL for school-aged children to evaluate ID. Anemia was defined as hemoglobin <11.0 g/dL for preschoolers and <12.0 g/dL for school-aged children. The following cutoff values were used based on our hospital laboratory values: iron <50 µg/dL, hematocrit <32%, mean corpuscular volume (MCV) <73 fL, and red cell distribution width (RDW) >14.8%. Childhood autism rating scale (CARS), autism behavior checklist (AuBC), and aberrant behavior checklist (AbBC) were used to examine relationship between blood values and severity of autistic symptoms, or behavioral problems.

RESULTS: Sixteen percent children with ASD were girls, 84 (84%) were boys and 29 (29%) of 100 healthy controls were girls, 71 (71%) were boys. The mean age was 8.36±4.22 in children with ASD and 11.01±3.73 in healthy controls. Hemoglobin, hematocrit, iron, and MCV levels of children with ASD were lower than the healthy controls. RDW levels of children with ASD were higher than healthy controls. Ferritin levels were almost the same in both study groups. ID and IDA were more common in children with ASD, but these findings were not statistically significant. Prevalence of IDA in children with mild to moderate ASD or normal intellectual capacity were lower than children with severe ASD or intellectual disability. The relationship between hematocrit levels of children with ASD and CARS, AuBC, AbBC total scores was statistically significant.

CONCLUSIONS: According to our findings, we can say that hemoglobin levels of children with ASD are lower than healthy children, but this is not sufficient to result in anemia. IDA in children with ASD may be associated with intellectual disability instead of ASD symptoms. Hematocrit levels only being correlated with CARS, AuBC, and AbBC suggests that these findings may be coincidental. On the other hand, it has been reported that hematocrit levels may have been associated with platelet monoamine oxidase (MAO) activity negatively and high platelet MAO activity may have been associated with psychiatric disorders.

Keywords: autism spectrum disorder, iron deficiency, anemia, hemoglobin

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[Abstract:0250][Schizophrenia and other psychotic disorders]**The prevalence of Brugada syndrome in patients with schizophrenia: a cross-sectional study in the Turkish population**

Ahmet Kaya¹, [Esra Yancar Demir](#)², Ibrahim Halil Tanboga³, Osman Bektas⁴, Adil Bayramoglu⁴, Mehmet Yaman⁴, Zeki Yuksel Gunaydin¹, Yasemin Kaya⁵

¹Department of Cardiology, Ordu University, School of Medicine, Ordu, Turkey

²Department of Psychiatry, Ordu University, School of Medicine, Ordu, Turkey

³Department of Cardiology, Ataturk University, School of Medicine, Erzurum, Turkey

⁴Department of Cardiology, Ministry of Health-Ordu University Education and Research Hospital, Ordu, Turkey

⁵Department of Internal Medicine, Ordu University, School of Medicine, Ordu, Turkey

e-mail address: edyancar@yahoo.com

OBJECTIVE: Brugada syndrome is a syndrome characterized by ST-segment increase in right precordial derivations (V1-3) on electrocardiography (ECG) of individuals without structural heart disease and is reported to have increased risk of sudden death due to rapid polymorphic ventricular tachycardia or ventricular fibrillation. This risk is greater for patients with type-1 ECG pattern, especially. Though the mechanism is not fully understood, schizophrenia is a psychiatric disease with high risk of fatal rhythm disorders and sudden cardiac death. A previous study reported that there was a high rate of Brugada syndrome observed (11.6%) in schizophrenia. In this study we aimed to examine the incidence of Brugada syndrome in patients with schizophrenia in a Turkish sample.

METHODS: Fifty-two patients with schizophrenia diagnosis, medically monitored in the psychiatric clinic, and 50 age and sex-matched healthy individuals with no psychiatric disorder were included in the study. Standard ECGs along with V1 and V2 derivations above two intercostal intervals and high intercostal ECGs were taken. All ECGs were screened for ECG characteristics of type 1, type 2, and type 3 Brugada syndrome by a cardiologist blind to the patients diagnoses.

RESULTS: While only 1 patient in the schizophrenia group was found to have type 2 Brugada pattern on ECG, no patient was observed to have type 1 or type 3 Brugada ECG pattern. Additionally in the healthy population no Brugada ECG patterns were observed.

CONCLUSIONS: There is not increased prevalence of Brugada-ECG pattern in patients with schizophrenia in this Turkish sample. This result is thought to be due to genetic differences between different races.

Keywords: schizophrenia, brugada syndrome, electrocardiography

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[Abstract:0263][Mood disorders]**Relationship between quality of life and caregiver burden and social support among caregivers of patients with bipolar disorder**

[Ozlem Devrim Balaban](#)¹, Ali Haydar Kucuktufekci², Ibrahim Tolga Binbay³

¹Department of Psychiatry, Bakirkoy Training and Research Hospital for Psychiatry, Neurology and Neurosurgery, Istanbul, Turkey

²Kilis State Hospital, Kilis, Turkey

³Department of Psychiatry, Dokuz Eylul University, School of Medicine, Izmir, Turkey

e-mail address: ozlemdevrimbalaban@gmail.com

OBJECTIVES: The aim of this study is to examine the relationship between quality of life and burden and perceived social support among care-givers of patients with bipolar disorder.

METHODS: Seventy five patients with bipolar affective disorder who were treated at the outpatient clinics of Bakirkoy Training and Research Hospital for Psychiatry, Neurology and Neurosurgery between October, 2013 and January, 2014 and their 75 caregivers were enrolled to the study consecutively. World Health Organization Quality of Life Short Form Turkish Version Scale (WHOQOL-BREF TR), Zarit Burden Interview (ZBI), and Multidimensional Scale of Perceived Social Support (MSPSS) were administered to the care-givers.

RESULTS: When care-givers divided to 3 groups as mild, moderate, and severe burden according to ZBI scores, WHOQOL-BREF-TR subdomain scores were significantly lower in care-givers who had higher burden except social domain of WHOQOL-BREF-TR. It was found

to be a significant positive correlation between MSPSS total scores and social, environmental, and national environmental domains of WHOQOL-BREF-TR, family subdomain and psychologic social, environmental, and national environmental domains of WHOQOL-BREF-TR, friends subdomain and physical domain, and significant others subdomain and social, environmental, and national environmental domains.

CONCLUSIONS: Strategies intended for decreasing burden and increasing social support should be included to the interventions for improving quality of life of care-givers of patients with bipolar disorder.

Keywords: bipolar disorder, caregiver burden, quality of life, social support

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[Abstract:0268][Schizophrenia and other psychotic disorders]

The relationship between symptom severity and sex hormone levels in patients with schizophrenia

Suheyla Dogan Bulut¹, Serdar Bulut², Olga Guriz¹

¹Diskapi Yildirim Beyazit Teaching and Research Hospital, Ankara, Turkey

²Yenimahalle Teaching and Research Hospital, Ankara, Turkey

e-mail address: dr_sdbulut@hotmail.com

OBJECTIVE: Findings from recent studies suggest that sex hormones effect on development of schizophrenia and the severity of the disease. However, conflicting results have been reported in studies. In our study, we aimed to compare the testosterone, DHEA-S, and cortisol levels of patients with schizophrenia and healthy controls and to examine the relationship between these hormones and the severity of the disease.

METHODS: Thirty-eight male outpatients with diagnosis of schizophrenia according to the DSM-IV-TR criteria and in remission, using olanzapine (n=22) or quetiapine (n=16) for at least 1 year with the 18–55 age range and sex- age matched 38 healthy controls were enrolled in the study. All patients were given sociodemographic and clinical data form. The Scale for the Assessment of Negative Symptoms (SANS) and the Scale for the Assessment of Positive Symptoms (SAPS) were used to evaluate symptom severity. Prolactin, DHEA-S, cortisol, and total testosterone levels of patients and the control group were measured by radioimmunoassay method. The average of the SANS scores of patients with schizophrenia was 40.00 ± 22.16 , and the average of the SAPS scores was 17.74 ± 16.24 . These values were taken as the cut-off point for the SAPS and SANS scores, values above these were considered to be high and values below these were low scoring subjects. The relationship between symptom severity and hormones were compared with these low and high values groups and healthy control group.

RESULTS: The results indicate no significant difference between patients with schizophrenia and healthy controls in terms of total testosterone levels. Prolactin, DHEA-S, and cortisol levels in schizophrenic patients, were significantly higher than the control group (in order $p=0.021$, $p=0.012$ and $p=0.009$). There were no correlations between hormone parameters and SANS and SAPS scores of all patients with schizophrenia. A negative correlation was found between SANS scores and DHEA-S levels ($r=-0.576$, $p=0.020$) in schizophrenia patients with predominantly negative symptoms (n=16).

CONCLUSIONS: The present results suggest that DHEA-S may have a role to slow down or reverse the progression of negative symptoms. Further studies are needed to examine the effect of DHEA-S treatment on disease course.

Keywords: schizophrenia, testosterone, DHEA-S, cortisol

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[Abstract:0277][Dependencies]

Effects of adult attention deficit and hyperactivity symptoms on clinical and treatment course of patients with opioid use disorder

[Seda Sasmaz](#), [Murat Kuloglu](#), [Fatih Canan](#), [Sima Ceren Pak](#), [Omer Gecici](#)

Department of Psychiatry, Akdeniz University, Antalya, Turkey
e-mail address: sedasasmaz@gmail.com

OBJECTIVE: People who are accompanied with attention deficit and hyperactivity disorder (ADHD) have longer periods of substance use. The research goals of this study were to examine ADHD symptoms, impulsivity, and aggression levels; as well as the effects of these features on clinical characteristics, treatment, and follow-ups of patients who are diagnosed with opioid use disorder (OUD).

METHODS: One hundred patients between the ages of 18–40 who were diagnosed with OUD (according to DSM-5 diagnostic criteria) that were not under substance influence and showed no withdrawal symptoms at the time of the interview, were included in the study. A control group of 50 people were chosen who were matched with the patient group on age, gender, and education and who had never had any psychiatric/ psychological treatment. All participants were given a Socio-demographic Data Form, ADHD Inventory, Buss-Perry Aggression Inventory (BPAI), and Barratt Impulsivity Inventory-11 (BII). An Addiction Profile Index was administered only to the patient group. Data was analyzed using PASW 18 (SPSS Inc., Chicago, IL).

RESULTS: Adult ADHD symptoms in the patient group were significantly higher than the control group ($p < 0.001$). 30% of the patients had low levels of ADHD symptoms while 36% had medium and 34% had high levels. It was found that the higher the adult ADHD symptoms were the higher the unemployment ratio. But there has been no correlation between the adult ADHD symptoms and education degrees, marital status ($p > 0.05$). Adult ADHD symptom levels lead to higher risk behaviors such as intravenous heroin use, injector sharing, criminal activities and recruitment service penalties ($p < 0.005$). Likewise there has been a positive correlation between the adult ADHD symptom levels and the amount and period of heroin use, the number of attempts to quit and hospitalization ($p < 0.001$). In our study, the BPAI and BII total scores of patient groups were significantly higher than the control groups ($p < 0.001$). It was found that as the Adult ADHD symptom levels increase, BPAI and BII total scores also scale up ($p < 0.001$).

CONCLUSIONS: Similar to our findings, a study conducted in Germany showed that 65% of people use substance have also ADHD symptoms. The people who have substance use with and without ADHD started using for similar reasons but only the people with ADHD continued using to improve their moods. It has been observed that the risk of substance use increases with adult ADHD symptoms as well as impulsivity and aggression. And these subjects should be considered and focused on treatment wise.

Keywords: opioid use disorder, adult ADHD, impulsivity, aggression

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[Abstract:0280][ADHD]

The adverse effects of stimulant and non-stimulant medication treatment of attention deficit hyperactivity disorder (ADHD) in children at a training hospital: a retrospective-follow up study

[Ozlem Hekim Bozkurt](#), [Hilal Aydemir](#), [Zeynep Goker](#), [Esra Cop](#), [Ozden Sukran Uneri](#)

Department of Child Psychiatry, Ankara Pediatric Hematology Oncology Training and Research Hospital, Ankara, Turkey
e-mail address: hekimozlem@yahoo.com

OBJECTIVE: This study was aimed to evaluate medication profiles, adverse effects, and related factors in children with attention deficit hyperactivity disorder (ADHD).

METHODS: Clinical records of children who had diagnosis of ADHD and treated with medication between October 1st, and October 30th, 2015 were screened from the medical records of Department of Child Psychiatry at Ankara Pediatric Hematology Oncology Training and Research Hospital. From October 2015 to January 2016, follow up information (medication type, adverse effects, drop-out, changing in treatment) of these children was also recorded. Data obtained from this screening was analyzed with SPSS. Chi-square and Fisher's exact tests were used where appropriate. $p < 0.05$ was accepted as significant.

RESULTS: Six hundred and seventeen of them with ADHD treated with medication in one month period were obtained from the

hospital's medical records and included to this study. 77% of them were male and 23% of them were female. 28.7% of them were very first treated for ADHD. The median age of all subjects was 10. 79.4% of children were using psychostimulants and 20.6% of them were using non-stimulants. For the first time treated group (n=177), it was also found that stimulants were the first choice treatment of ADHD (79.1% of all). Drop-out ratio of first time treated children during 4 months follow up was 13% (n=23). Any adverse effect was detected in 10.7% (n=66) of all subjects and there was no statistically significant difference between genders (p=0.148). There was also no significant difference between taking stimulant or non-stimulant medications for developing adverse effects (p=0.830). The profile of adverse effects was the following: there were no side effects reported in 85.6% of all children, whereas 10.7% of them experienced an adverse effect (3.7%, n=23 missing data). 6% of them experienced any central nervous system side effects, 2.6% of all reported gastrointestinal system, 0.5% of them pointed a cardiovascular system, and 1.6% of all (n=10) experienced the other side effects. In 4.5% of all cases medication type was needed to be changed with another medication agent for ADHD treatment or a decrease in dosage of medication for dealing with the adverse effect they experienced. There was no statistical difference between using psychostimulant or non-stimulant in terms of changing or lowering dosage of medication (p=0.715). There was also no statistically significant difference between genders in terms of changing medication due to their adverse effects (p=0.475). Also no difference was found between the medication types regarding the changes in dosage or drugs itself one another (p=0.926).

CONCLUSIONS: Methylphenidate-derived psychostimulants are very first preferable drugs to treat ADHD. All medications were very-well tolerated in 85.67% of all subjects. 4.5% of treatments for all participants needed to be changed either in their dosage or in changing with another ADHD medication agent for adverse effects stemming from drugs.

Keywords: ADHD, medication, adverse effects, children

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[Abstract:0286][Dependencies]

Assesment of the relations between sociodemographic features, personality traits, and migration among opioid dependents

[Musa Yildiz¹](#), [Fatih Canan²](#), [Taha Karaman²](#), [Mehmet Murat Kuloglu²](#), [Asli Ercan³](#), [Omer Gecici²](#)

¹Serik State Hospital, Antalya, Turkey

²Department of Psychiatry, Akdeniz University, School of Medicine, Antalya, Turkey

³Sehitkamil State Hospital, Gaziantep, Turkey

e-mail address: drmyildiz07@hotmail.com

OBJECTIVE: The aim of this study is to examine the personality traits, sociodemographic, and clinical features of opioid addicts and to determine how migration affects those features.

METHODS: This descriptive and cross-sectional study was conducted at the Akdeniz University's Drug and Alcohol Addiction Research and Practice Center. The data was collected from patients aged between 18-39 years who were admitted to the outpatient and inpatient clinics and diagnosed with opioid dependence according to DSM-IV-TR, together with healthy volunteers who are matched with patients in terms of age, gender, and educational status. Patient group consisted of 69 subjects; 39 of the subjects were migrated from other cities to Antalya while 30 of them were native residents. Control group consisted of 61 volunteers; 33 of them were migrated while 28 of them were native residents. Materials of data collection were sociodemographic and clinical inquiry form which were developed by researchers specifically and administered by researchers in addition to the Turkish version of Temperament and Character Inventory (Turkish TCI), a 240-item, self-report, paper-and-pencil test, and true-false format inventory based on Cloninger's psychobiological model of personality.

RESULT: Higher rates of novelty seeking trait among opioid addicts was found compared to the control group (p=0.003). Quite high percentages (97.4%) of migrant opioid dependents were second generation migrants. It was also determined that regular outpatient clinic examinations (p=0.003), past history of hospitalization (p=0.034), and higher level of education (p=0.037) obviously extended the period of remission.

CONCLUSIONS: To have a novelty seeking trait and being a second generation migrant both increase the risk of substance use disorder which should be considered vital in the fight against drug/substance dependence.

Keywords: opioid dependence, heroin, personality, TCI, migration

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[Abstract:0297][Others]

Association between perceived expressed emotion and psychopathology in adolescents

Safak Eray¹, Pinar Vural², Deniz Sigirli³¹Department of Child and Adolescent Psychiatry, Van Training and Research Hospital, Van, Turkey²Department of Child and Adolescent Psychiatry, Uludag University, Bursa, Turkey³Department of Biostatistics, Uludag University, Bursa, Turkey

e-mail address: drsafakeray@gmail.com

OBJECTIVE: Expressed emotion (EE) has an empirically derived definition, which originates from studies of the emotional climate of the family. EE is defined as a prognostic factor in psychiatric disorders. Our purpose was to examine the association between perceived EE and emotional and behavioral problems, attention deficit and hyperactivity (ADHD), peer relationship problems and prosocial behaviors in non-clinical adolescents. Another purpose of our study was to assess the association in non-clinical samples between sociodemographic variables such as age and sex and EE.

METHODS: The research group was composed of high school students who were in continuing studies in 2014–2015 at secondary education institutions in Gebze, Kocaeli. The data were collected using the Information Collection Form, Strengths and Difficulties Questionnaire (SDQ), and Shortened Level of EE Scale (S-LEES).

RESULTS: There were significant positive relationships between the EE and the sub-scales of S-LEES; lack of emotional support, intrusiveness and irritability and the sub-scales of the SDQ; emotional problems ($p < 0.001$), behavioral problems ($p < 0.001$), ADHD ($p < 0.001$), and peer relationship problems ($p < 0.001$). There was also a negative significant relationship between prosocial behaviors and EE ($p < 0.001$).

CONCLUSIONS: The results of the present study revealed a strong relationship between EE and psychopathology in a non-clinical sample in Turkey. Given the importance of EE in the diagnosis and treatment of preventative mental health and psychopathologies, we believe that the concept of EE in non-clinical samples is useful in preventing disorders and in guiding the treatment of mental disorders. This study is the first investigation of EE and psychopathology in a non-clinical sample in Turkey and first study used a self-report scale which was developed special for adolescents.

Keywords: perceived expressed emotion, psychopathology, adolescents

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[Abstract:0298][Dependencies]

Perceived expressed emotion and internet addiction in adolescents with diabetes mellitus

Halit Necmi Ucar¹, Safak Eray², Fatma Cetinkaya³, Erdal Eren⁴, Pinar Vural¹¹Department of Child and Adolescent Psychiatry, Uludag University, Bursa, Turkey²Department of Child and Adolescent Psychiatry, Van Training and Research Hospital, Van, Turkey³Department of Pediatrics, Gaziosmanpasa Taksim Training and Research Hospital, Istanbul, Turkey⁴Department of Pediatric Endocrinology, Uludag University, Bursa, Turkey

e-mail address: halitnecmiucar@hotmail.com

OBJECTIVE: Our aim was to examine perceived expressed emotion (PEE), internet addiction (IA) in adolescents with Type 1 diabetes mellitus (DM) and the interaction between PEE and IA. We hypothesized that adolescents with DM have higher PEE which involves lack of emotional support, intrusiveness, irritability than the healthy peers. Our another hypothesis was that higher IA scores would be correlated to higher PEE scores.

METHODS: Included in the study are 50 adolescents who are diagnosed with DM for at least one year and 51 adolescents for control group. The subjects were evaluated by a child psychiatrist and a pediatrician. Psychopathy and intellectual disability were exclusion criteria. Psychopathology was measured by using Schedule for Affective Disorders and Schizophrenia for School-Age Children, Present and Life time Version (K-SADS-PL) Turkish Version. Adolescents whose total intelligence segment points are equal or above 85 according to the Revised Wechsler Intelligence Scale for Children (WISC-R) form were included in the study. PEE was measured by Shortened Level of Expressed Emotion Scale (SLEES). IA was measured by Internet Addiction Scale (IAS).

RESULTS: Means of the SLEES by groups were: $X=61.1$, $SD=17.6$ for the patient group and $X=54.8$, $SD=12.5$ for the control group. An

independent sample t-test was conducted to evaluate the differences between two groups. There were significant differences in the perceived express emotion scores by groups ($t=2.092$) ($p=0.039$). There was also significant difference in the subscale of lack of emotional support scores by groups ($t=2.515$) ($p=0.014$). And there were no differences in the subscales of irritability and intrusiveness. Means of the IAS by groups were: $X=54.9$, $SD=22.0$ for the patient group and $X=57.7$, $SD=17.6$ for the control group. An independent sample t-test was conducted to evaluate the differences between two groups. There was no difference in the internet addiction scores by groups ($t=-0.701$) ($p=0.485$). There were no significant correlations between the scores of perceived express emotion scores and internet addiction scores in both groups.

CONCLUSIONS: The results of this study suggest that PEE in the adolescents with DM is significantly high. This is noticeable for it draws attention to the psycho-social dimension in the clinical evaluation of the adolescents with DM. But their IA scores is not different from healthy adolescents. These results showed that there was no increased risk about internet addiction for adolescents with chronic disease compared with the healthy peers. At the same time these results repeated the importance of family climate of adolescents with chronic disease. But we need to replicate these findings with studies in a larger sample.

Keywords: perceived expressed emotion, internet addiction, diabetes mellitus

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[Abstract:0301][Stress and related conditions]

The relationship between childhood trauma and type D personality in university students

Kadir Demirci¹, Mesut Yildiz², Cansu Selvi³, Abdullah Akpınar¹

¹Department of Psychiatry, Suleyman Demirel University, School of Medicine, Isparta, Turkey

²Department of Psychiatry, Gaziosmanpasa University, School of Medicine, Tokat, Turkey

³Suleyman Demirel University, School of Medicine, Isparta, Turkey

e-mail address: kdrdmrc@yahoo.com

OBJECTIVE: Type-D personality was described as the tendency to reveal a joint existence of two stable and normal personality traits, namely negative affectivity and social inhibition, given their prone to chronic distress. Individuals with high levels on both traits are classified as having a type-D personality. It is based on normal personality traits rather than psychopathology and also a stable construct. Type-D personality makes individual vulnerable to general psychological distress and so is related to disease-promoting mechanisms. It has been shown that type-D personality is associated with psychiatric symptoms, including depressive, anxiety symptoms, and posttraumatic stress disorder symptoms. There has been increasing evidence that childhood traumas are related to reduced health-related quality of life, neurobiological changes, and long-term adverse effects, such as an increase in the likelihood of psychiatric disorders in adulthoods. The aim of present study was to examine the relationship between childhood trauma and type-D personality.

METHODS: In total, 187 university students (64 males and 123 females; mean age= 21.69 ± 2.00) were included in the study. All participants were evaluated using the Type-D Personality Scale (DS-14), Childhood Trauma Questionnaire (CTQ-28), and Beck Depression Inventory (BDI). The participants were divided into two groups according to whether or not they had type-D personality. Then, statistical analyses were performed.

RESULTS: The frequency of type-D personality in participants was 43.3% ($n=81$). The emotional neglect, physical neglect, emotional abuse component of the CTQ-28, total CTQ-28 scores, and BDI scores were higher in the group with type-D personality than in the group without type-D personality ($p<0.05$ for all). There were significantly positive correlations between the type-D personality scores and BDI scores, emotional neglect, physical neglect, emotional abuse, and childhood trauma total scores ($p<0.05$ for all). The NA subscale score of the DS-14 were found to correlate positively with the emotional neglect, physical neglect, and emotional abuse subscales of the CTQ-28, total score of the CTQ-28, and BDI scores ($p<0.05$ for all). The SI subscale score of the DS-14 were found to correlate positively with the emotional neglect and physical neglect subscales of the CTQ-28, total score of the CTQ-28, and BDI scores ($p<0.05$ for all). In addition, emotional abuse subscales of the CTQ-28 was positively correlated with the SI subscale score of the DS-14 ($p<0.05$). Regression analyses were performed to determine independent predictors for type-D personality. Multivariate regression analyses showed that the significant and independent predictors of type-D personality were a high childhood trauma score (OR: 3.92, 95% CI: 1.97-7.81, $p<0.001$) and the presence of depression (OR: 10.41, 95% CI: 2.89-37.44, $p<0.001$).

CONCLUSIONS: Childhood trauma might be associated with type-D personality and might contribute to the presence of type-D personality. Early determination of an individual with childhood trauma may be helpful for providing psychological support in the earlier phase and contribute to preventing the negative consequences of type-D personality including reduced quality of life.

Keywords: childhood trauma, DS-14, type D personality

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[Abstract:0302][Others]

Perceived expressed emotion and glycemic control in adolescents with type 1 diabetes: a preliminary study

[Safak Eray](#)¹, Halit Necmi Ucar², Fatma Cetinkaya³, Erdal Eren⁴, Pinar Vural²

¹Department of Child and Adolescent Psychiatry, Van Training and Research Hospital, Van, Turkey

²Department of Child and Adolescent Psychiatry, Uludag University, Bursa, Turkey

³Department of Pediatrics, Gaziosmanpasa Taksim Training and Research Hospital, Istanbul, Turkey

⁴Department of Pediatric Endocrinology, Uludag University, Bursa, Turkey

e-mail address: drsafakeray@gmail.com

OBJECTIVE: Our aim was to examine the relationship between perceived expressed emotion (EE) and glycemic control in adolescents with Type 1 diabetes. We hypothesized that good glycemic control, as measured by low glycosylated hemoglobin levels, would be predicted by low perceived expressed emotion which involves lack of emotional support, intrusiveness, and irritability. We measured perceived EE by a self reported scale which is specialized for adolescents.

METHODS: Fifty adolescents with Type 1 diabetes for at least one year were completed the study. The adolescent evaluated by an child psychiatrist and pediatrics. Psychopathology and intellectual disability were exclusion criteria. Psychopathology was measured using Schedule for Affective Disorders and Schizophrenia for School-Age Children, Present and Life time Version (K-SADS-PL) Turkish Version. Adolescents whose total intelligence segment points are equal or above 85 according to the Revised Wechsler Intelligence Scale for Children (WISC-R) form are included in the study. Perceived EE was measured by Shortened Level of Expressed Emotion Scale (SLEES). Glycosylated hemoglobin was measured and the group divided to two groups according to HbA1c levels. 25 of adolescents' HbA1c levels were low then 10.0 (group 1) and 25 of them were higher (group 2).

RESULTS: Means of the SLEES by groups were: $X=56.4$, $SD=13.3$ for group 1 and $X=66.2$, $SD=20.0$ for group 2. An independent sample t-test was conducted to evaluate the differences between two groups. There were significant differences in the perceived express emotion scores by groups ($t=2.042$) ($p=0.047$). There was also significant difference in the subscale of lack of emotional support scores by groups ($t=2.237$) ($p=0.030$). And there were no differences in the subscales of irritability and intrusiveness by groups.

CONCLUSIONS: We find that perceived EE predicted glycemic control of adolescents. Presence of lack of emotional support was important. We did not find that irritability and intrusiveness related glycemic control. It showed us that when adolescents feel less emotional support it is more difficult to cope with diabetes mellitus. The importance of the study was using self report scale which specialized for adolescent and the subscales were more adaptive for adolescent. This gave us a chance to evaluate the perception of the adolescents.

Keywords: perceived expressed emotion, glycemic control, diabetes mellitus

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[Abstract:0323][ADHD]

The prevalence and associated factors of internet addiction among adolescents with attention deficit hyperactivity disorder: the associations with subtypes, symptom dimensions and comorbidities

[Recep Bostan](#), Ozalp Ekinci

Department of Child and Adolescent Psychiatry, Mersin University, Mersin, Turkey

e-mail address: dr.recepbostan@gmail.com

OBJECTIVE: Attention deficit hyperactivity disorder (ADHD), especially in adolescence, has been known as a risk factor of internet addiction. This study aimed to assess the effects of attention deficit hyperactivity disorder (ADHD) symptom dimensions, subtypes, and comorbidities on Internet addiction (IA) among adolescents.

METHODS: This study consisted of 129 adolescents who were diagnosed with ADHD according to DSM-5 (38 females, 91 males) and 108 healthy controls (42 females, 62 males) who did not have any psychiatric disorders or physical illnesses, ranging from 12 to 18 years of age. Adolescents with ADHD and healthy controls were asked to complete internet addiction scale (IAS) and weekly internet use scale

developed by the authors. Adolescents with ADHD also completed the Childhood Depression Inventory (CDI) and State Trait Anxiety Inventory and their parents were asked to complete the Turgay DSM-IV-Based Child and Adolescent Disruptive Behavioral Disorders Screening and Rating Scale (T-DSM-IV-S) as data collection tools. ADHD subtypes, including the restrictive subtype, and the comorbidities including anxiety disorder, major depression, oppositional defiant disorder and conduct disorder were diagnosed with a structured clinical interview based on DSM-IV criteria (SCID-I). In addition to the comparative analyses between study groups, a multiple regression analyses were performed to determine the predictors of problematic internet use (IAS score above 50) among adolescents with ADHD.

RESULTS: In the ADHD group, the frequencies of internet addiction and risky internet use were 7.8% and 46.5%, respectively. In the healthy control group, the frequency of risky internet use was 14.8% and internet addiction was not detected. Average weekly internet usage time and IAS scores were found to be significantly higher in the ADHD group than the control group. No statistically significant difference was found between the three ADHD subtypes (combined, predominantly inattentive and restrictive) with respect to IAS scores and weekly internet usage. The frequency of conduct disorder, but not the other comorbid diagnoses, were higher in those with a IAS score >50. Pearson's correlation analysis revealed that T-DSM-IV-S, conduct disorder, and Beck depression scores demonstrated significant positive correlations with IAS scores. According to the multiple logistic regression analysis, only the T-DSM-IV-S scores were found as a predictor of problematic internet use among adolescents with ADHD.

CONCLUSIONS: The results of this study showed that problematic internet use is more common in adolescents with ADHD than the healthy controls. Clinicians should screen the possible comorbidities of conduct disorder and depression in those with a problematic internet use. Inattentiveness symptoms, but not the ADHD subtypes, appeared to be a strong predictor of internet addiction.

Keywords: ADHD, internet addiction, adolescent

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[Abstract:0342][Others]

Psychiatric dimensions in mothers of children with primary nocturnal enuresis: a controlled study

Onur Durmaz¹, Serkan Kemer², Tuba Mutluer³, Elif Butun³

¹Balikesir Military Hospital, Balikesir, Turkey

²Van Military Hospital, Van, Turkey

³Department of Child and Adolescent Psychiatry, Van Regional Research and Training Hospital, Van, Turkey

e-mail address: drodurmaz@gmail.com

OBJECTIVE: Primary nocturnal enuresis (PNE) is a condition that involves involuntary nighttime bed-wetting after the age of 5 years that cannot be described as originating from a urinary or neurological disorder. The etiology of this disorder is not fully understood, but multifactorial factors have been blamed for PNE.

In this study, we aimed to examine the psychopathology in mothers of children diagnosed with PNE compared with mothers of healthy children in terms of personality characteristics, early traumatic experiences, and psychiatric symptoms.

METHODS: The study included 44 mothers of children diagnosed with PNE and 45 mothers of healthy children who were randomly selected from the population applying to the pediatrics outpatient clinic. Individuals were administered psychometric questionnaires, including the Eysenck Personality Questionnaire Revised Abbreviated (EPQR-A), the Symptom Checklist-90 (SCL-90-R), and the Childhood Trauma Questionnaire (CTQ), in addition to a sociodemographic form including 9 semi-structured "yes/no" questions that evaluated intrafamilial relationships, as well as mothers' perceptions of enuresis and its treatment.

RESULTS: The rates of a history of enuresis in childhood were 26.7% in the MoPNE group (n=12) and 6.7% in the MoHC group (n=3; p=0.011). There were significant differences between the groups for the subscales of somatization, anxiety, obsessive-compulsive behavior, depression, interpersonal sensitivity, psychoticism, hostility, phobic anxiety, additional items, and the general psychopathology index in the SCL-90-R scores (p<0.05). Meanwhile, there were no significant differences between the groups in terms of paranoid ideation subscale scores (p=0.070). There were statistically significant differences between the groups for the subscales of sexual abuse, physical neglect, and total score in CTQ scale, while the personality dimensions using the EPQR-A resulted in significant differences in the E and L subscales (p<0.05)

CONCLUSIONS: Our study showed that psychiatric symptomatology and childhood traumatic experiences were considerably higher in mothers of children with PNE. This study highlights the importance of evaluating PNE not only from a biological perspective but also in terms of psychosocial factors, including assessment of the mother's mental health status.

Keywords: enuresis, parents, perception, psychopathology

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[Abstract:0365][Anxiety disorders]**Irritability in children and adolescents: Validity and reliability of Turkish version of affective reactivity index**Omer Kocael¹, Deniz Sigirli², Pinar Vural¹¹Department of Child and Adolescent Psychiatry, Uludag University, Bursa, Turkey²Department of Biostatistics, Uludag University, Bursa, Turkey

e-mail address: omerkocael@hotmail.com

OBJECTIVE: Irritability is defined as the low threshold of anger in response to be blocked, as a tendency to nervousness at a level that can damage himself/herself or his/her relatives around, or as a protracted period of nervousness. Irritability is encountered as a symptom in anxiety disorders; especially in generalized anxiety disorder, as in many psychiatric disorders. Despite the strong interest of DSM-5 working group, research on irritability criteria stayed limited. In order to fill this gap, Affective Reactivity Index (ARI) which will provide us to collect comparable information from children-adolescents and their families about irritability was designed. In this study, we aimed to determine the validity and reliability of the Turkish adaptation of the ARI.

METHODS: ARI was translated to Turkish and back to English and the back-translated form of the scale was approved by Dr. Stingaris, its original developer. The translated text was administered to fifteen outpatients as a pilot study and was deemed appropriate following a joint review by the research team. The sample of this study comprised 1300 students from three high schools and three primary schools in the center of Bursa which represent three different socio-economic statuses, and their parents. The demographic data were collected by using an Information Collecting Form, parent and children forms of The Screen for Child Anxiety Related Emotional Disorders (SCARED) and ARI's children-adolescent and parent forms.

RESULTS: Internal consistency of the Turkish version of ARI was good, with Cronbach's alpha value of 0.857 for the self-report and 0.831 for the parent form. Also test-retest reliability was 0.929 for self-report and 0.965 for parent form. In order to determine the criterion validity of ARI, SCARED was used (with considering the relationship between anxiety disorders and irritability). As a result of our work, since a correlation between SCARED (including Generalized Anxiety Disorder subscale of SCARED) and ARI was seen ($p < 0.001$), it was accepted that ARI provided the criterion validity. We performed confirmatory factor analysis to assess the construct validity and all the fit indices show that the single-factor structure proposed by Stringaris et al. was an adequate description both for self-report and parent-report data.

CONCLUSIONS: The results of the analysis supports that Turkish version of the ARI has an adequate validity and reliability. ARI is a new and an appropriate scale to evaluate irritability symptoms in children and adolescents in Turkey. Turkish adaptation of ARI was similar to the original single-factor structure in terms of the psychometric properties. Our study also bears the distinction of being the first study to evaluate irritability directly in non-clinical sample in the Turkish society.

Keywords: affective reactivity index, irritability, psychometric properties

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[Abstract:0379][Epidemiyoloji]**The prevalence of emotional and behavioral problems and associated factors in a community sample of high school students in Tokat**Yunus Emre Bulut¹, Hasan Bozkurt², Mucahit Egri¹¹Department of Public Health, Gaziosmanpasa University, Tokat, Turkey²Department of Child and Adolescent Psychiatry, Gaziosmanpasa University, Tokat, Turkey

e-mail address: yunusemrebulut@yahoo.com

OBJECTIVE: To determine the prevalence of emotional and behavioral problems and possible associated factors in a community sample of high school students in Tokat.

METHODS: Students were selected randomly from 18 high schools in the province of Tokat. Self-report version of Strengths and Difficulties Questionnaire (SDQ) and a questionnaire including some personal data, socio-demographic features and risky health

behaviour were administered to students by the researchers. Written informed consent was obtained from the students participating in the study and the Gaziosmanpasa University Ethical Committee approved the study. Chi-square test was used for statistical analysis and a value of $p < 0.05$ was considered statistically significant.

RESULTS: The study consisted of 491 students (235 males, 256 females) with a mean age of 15.55 ± 1.13 years. 29.7% of the students scored above the normal threshold (10.6% abnormal, 19.1% borderline) regarding the SDQ total score. The frequency of problems were found to be 16% for emotional symptoms, 20% for conduct problems, 29% for attention deficit and hyperactivity, 33% for peer problems, and 9% for prosocial behaviour. Having divorced parents, consanguinity between parents, having a chronic disease, spending excessive time with smartphone and computer, being involved in a fight, having suicidal thoughts, plans, and attempts in the past 12 months, smoking, drinking alcohol, having a history of substance abuse were demonstrated to be associated with an abnormal SDQ total score ($p < 0.05$).

CONCLUSIONS: The present study focuses on the emotional and behavioral problems in a wide community sample of high school students. Given the persistence of psychological problems from adolescence into adulthood, determining the adolescents at risk for developing psychiatric disorders become more of an issue for preventive adolescent mental health.

Keywords: adolescent, SDQ, risky health behaviour, emotional and behavioral problems

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[Abstract:0391][Schizophrenia and other psychotic disorders]

Relationship of metabolic syndrome with levels of serum ghrelin and nesfatin-1 in schizophrenia

Kubranur Unal¹, Rabia Nazik Yuksele², Turan Turhan¹, Sevilay Sezer¹, Elif Tatlidil Yaylaci²

¹Department of Biochemistry, Ankara Numune Training and Research Hospital, Ankara, Turkey

²Department of Psychiatry, Ankara Numune Training and Research Hospital, Ankara, Turkey

e-mail address: rabianazik@gmail.com

OBJECTIVE: In patients with schizophrenia; obesity, diabetes, hypertension and hyperlipidemia are more frequent than the general population. These risk factors are defined as metabolic syndrome (MS). Ghrelin and nesfatin-1 are two hormones which has opposite effects, play role in food intake, stimulation of appetite and balancing energy. This study was planned on the idea that both the metabolic syndrome and psychiatric disorders are associated with nesfatin-1 and ghrelin. Also in this study, we aimed to examine the levels of ghrelin and nesfatin-1 in patients with schizophrenia by taking confounding factor as the metabolic syndrome.

METHODS: Fifty five patients with schizophrenia (31 male, 24 female) and thirty three healthy controls were included in the study. According to ATP III-A criteria, 11 of 55 patients (20%) has MS. Serum ghrelin and nesfatin-1 levels of schizophrenic patients with MS have been compared with both healthy controls and schizophrenia patients without MS.

RESULTS: There is no significant statistical difference between MS patients (0.28-22.77 ng/ml), non-MS patients (0.39-10.39 ng/ml) and control (0.52-16.89 ng/ml) groups was detected in terms of serum ghrelin levels ($p = 0.54$). When patients with schizophrenia by taking confounding factor as the metabolic syndrome was taken into account, serum nesfatin-1 concentrations were significantly higher in schizophrenia patients with MS (10.51-350.8 pg/ml) with respect to the healthy control group (4.86-68.91 pg/ml) ($p < 0.05$).

CONCLUSIONS: The lack of significant difference between non-MS patients and control groups in terms of serum nesfatin-1 levels, elevation of nesfatin-1 levels in schizophrenia patients with MS suggests that MS also have a contribution. On the other hand, the lack of significant difference between non-MS patients and MS patients in terms of serum nesfatin-1 levels and elevation of nesfatin-1 levels in non-MS patients compared to control group suggests that schizophrenia might have a contribution. These results also suggest that the presence of MS as a factor should be questioned between psychiatric disorders and nesfatin-1 levels.

Keywords: ghrelin, nesfatin-1, metabolic syndrome, schizophrenia

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[Abstract:0402][Others]

Comorbid psychiatric disorders in migraine and tension type headache subtypes

Gulen Guler¹, Veli Yildirim¹, Meryem Ozlem Kutuk², Aynur Ozge³, Fevziye Toros¹¹Department of Child and Adolescent Psychiatry, Mersin University, School of Medicine, Mersin, Turkey²Department of Child and Adolescent Psychiatry, Baskent University, School of Medicine, Adana, Turkey³Department of Neurology, Mersin University, School of Medicine, Mersin, Turkey

e-mail address: dr.gulen@hotmail.com

OBJECTIVE: We aimed to evaluate comorbid psychiatric disorders in adolescents suffering from migraine, tension type headache (TTH) and their subtypes.

METHODS: This study includes 140 adolescents between 12–18 years old who admitted to our outpatient clinic with the main complaint of headache. Sociodemographic data form was completed for each patient. Types of the headaches were identified based on ICHD 3 beta criteria and the psychiatric disorders were identified based on DSM-IV criteria. Headaches were classified as migraine and TTH. Psychiatric disorders were classified as non-psychiatric disorders, anxiety disorder, depression, attention deficit and hyperactivity disorder (ADHD), and conduct disorder. The data were analyzed by STATA/ MP11 package program. The chi-square test, student t-test and Mann-Whitney U test were used to compare psychiatric disorders and non-psychiatric disorders groups.

RESULTS: Hundred and forty adolescents were diagnosed as primary headache. 35% were man, 65% were women in this study group. The mean age was 14.37±1.79. 70% (n=98) of subjects were migraine and 30% (n=42) were TTH. In migraine and TTH, statistically significant difference were not found in terms of psychiatric disorders (p=0.822). There was no statistically difference (p=0.905) when migraine subtypes (migraine with aura, migraine without aura, chronic migraine) were evaluated in terms of the presence of psychiatric disorders. In TTH subtypes (episodic TTH, chronic TTH), the presence of psychiatric disorders were higher in chronic TTH than episodic TTH (p=0.008). There was no statistically significant relationship between psychiatric diagnoses and migraine subtypes (p=0.548). In chronic TTH the distribution of psychiatric diagnoses was statistically significantly different (p=0.039). With high rates, anxiety disorder was 60% in chronic TTH and 25% in episodic TTH.

CONCLUSIONS: Studies report more mood and anxiety disorders, particularly in chronic migraine. In a multicenter study, 84% of chronic TTH and 70% of episodic TTH are found comorbid with a psychiatric disorder. In our study high rates of psychiatric comorbidity is noteworthy in both migraine and TTH. Despite no difference in migraine subtypes, anxiety disorder was significantly higher in chronic TTH than episodic TTH. A multidisciplinary approach with detailed neurological and psychiatric examination is important for early diagnosis and treatment of adolescents suffering from headache.

Keywords: adolescent, headache, migraine

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[Abstract:0404][Dependencies]

Body mass index and related factors in patients with substance use disorder

Mehmet Murat Kuloglu¹, Fatih Canan¹, Servet Karaca¹, Hacer Yalniz², Nilufer Yalincetin², Omer Gecici¹¹Department of Psychiatry, Akdeniz University, Antalya, Turkey²Alcohol and Substance Addiction Treatment and Research Center, Akdeniz University, Antalya, Turkey

e-mail address: skaraca2707@gmail.com

OBJECTIVE: Obesity and substance use disorders both have important effects on physical and mental well-being. Both are associated with increased morbidity and mortality, as well as reduced life expectancy. We aimed to examine the relationship between body mass index (BMI) and sociodemographic and clinical factors in patients with substance use disorders.

METHODS: We conducted a retrospective chart review to identify 318 inpatients who presented to treatment for substance use disorders at the Alcohol and Substance Addiction Treatment and Research Center of Akdeniz University in 2013. Height and weight values, as well as sociodemographic data and clinical features were obtained from the records. BMI was calculated as weight divided by height (kg/m²).

RESULTS: Total number of inpatients during the calendar year 2013 was 318. The majority of the sample was men (94.6%). The mean age of the subjects was 27.4±9.2 years (range=15-61). All the patients were smokers. Heroin was the main substance of abuse for the large

majority (82.2%). The main substance of abuse was alcohol in 56 patients (17.8%). The patients with heroin use disorder was younger than those with alcohol use disorder (24.2 ± 4.5 , 42.3 ± 11 , respectively; $p<0.001$). According to the WHO BMI classification 34 patients (10.8%) were classified as underweight (BMI<18.5); 233 (74%) had a normal weight (BMI: 18.5–25); 36 subjects (11.4%) were overweight (BMI: 25–30); and 12 patients (3.8%) were classified as obese (BMI ≥ 30). The age was positively correlated to the BMI ($r=0.240$; $p<0.01$). The mean of BMI of the patients whose main substance of abuse was alcohol (24.2 ± 4.1) was significantly higher than that of patients whose main substance of abuse was heroin (21.6 ± 3.3) ($p<0.001$). We did not find any significant difference regarding BMI levels between patients with alcohol and cannabis use disorders ($n=8$) and those with only alcohol use disorder ($n=42$) (26.6 ± 4.2 , 23.8 ± 4.0 , respectively; $p>0.05$). Patients with heroin use disorder were divided into four groups according to the existence of the accompanying illicit drugs that were used within two months prior to admission. Group A: Patients with only heroin use ($n=142$). Group B: Patients with heroin and cocaine use ($n=46$). Group C: Patients with heroin and cannabis use ($n=35$). Group D: Patients with heroin, cocaine, and cannabis use ($n=36$). The mean BMI levels were as follows: 21.6 ± 3.1 for Group A, 20.6 ± 2.9 for Group B, 22.9 ± 4.1 for Group C, and $21.53.1$ for Group D. The difference between Group B and Group C was statistically significant ($p<0.05$).

CONCLUSIONS: This study demonstrated that 10.8% of the patients with substance use disorder were classified as underweight, though only 3.8% of them were obese. Patients with alcohol use disorder had higher BMI levels than those with heroin use disorder. Among heroin users, those with accompanying cocaine use had lower BMI levels when compared with those with accompanying cannabis use. Our findings show that the relationship between BMI and substance use is complex because of polysubstance use pattern commonly observed in clinical practice.

Keywords: alcohol, body mass index, cannabis, heroin, substance use disorder

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[Abstract:0411][Mood disorders]

Neuronal integrity and suicidality in bipolar depression: a DTI study

Huseyin Bayazit¹, Mustafa Celik², Salih Selek³

¹Department of Psychiatry, Siverek State Hospital, Sanliurfa, Turkey

²Department of Psychiatry, Gazi Yasargil Training and Research Hospital, Diyarbakir, Turkey

³Harris County Psychiatric Center, University of Texas Health Science Center at Houston, Texas, USA

e-mail address: drbayazit@yahoo.com

OBJECTIVE: Bipolar disorder (BD) is a chronic disorder that characterized by repetitive episodes usually manifests through adolescence or early adulthood. Although etiology of bipolar disorder is still unknown, structural changes of brain are proven to may have a contributory role. Diffusion tensor magnetic resonance imaging (DTI) is based on structural investigation of a tissue via the measurement of diffusion rate and direction of water molecules. Several previous DTI studies reported abnormality in brain of BD patients. In this study, we aimed to investigate neuronal integrity and abnormalities, which may contribute to the etiology of bipolar depression.

METHODS: Sixteen subjects with BD-I depressive episode and sixteen healthy volunteer controls were matched according to age and gender. Mood symptoms were evaluated by using the Turkish version of 21-item Hamilton Depression Rating Scale (HAM-D). All images were obtained on a 1.5 Tesla MRI scanner (Magnetom, Symphony-Quantum, Siemens, Erlangen, Germany). The fractional anisotropy FA and apparent diffusion coefficient ADC values of white matter were measured in the corpus callosum genu (CCG) and splenium (CCS). The continuous variables were compared between groups by using t test for independent samples. Differences were accepted as significant when $p<0.05$.

RESULTS: The patients and controls did not differ in age and gender ($p>0.05$). We found significantly increased ADC in corpus callosum genu (CCG) in patients compared to the healthy controls. Although there were decreased FA in corpus callosum genu and splenium, it was not significant. We found moderate correlation between increased ADC in CCG and total HAM-D scores ($r=0.526$, $p=0.035$, $n=16$) and suicide sub-item of HAM-D scale ($r=0.659$, $p=0.005$, $n=16$).

CONCLUSION: We found significant increase of ADC in CCG in bipolar depression compared to healthy controls. Our result is consistent with the study which Brambilla et al. found decreased corpus callosum signal integrity in bipolar depression. Second important finding of this study was a correlation between increased ADC in CCG and suicide subitem of HAM-D and total HAM-D. Bipolar disorder has the highest risk of suicide among affective disorders. Tondo et al. reported that suicide rates, averaging 0.4% per year in bipolar disorder were 20-fold higher than the general population. Taylor et al. reported widespread FA changes in white matter in individuals with suicidal idea. Additionally, significant inverse correlation between CCG area and impulsivity was indicated by Koji et al. as consistent with the data that impulsivity is associated with suicidality in mood disorders. Our study is the first to show the correlation between increased ADC in

CCG and suicide sub-item of HAM-D score. This finding may also help us to diagnose patients with suicide idea and to understand the neurobiology of suicide.

Keywords: bipolar disorder, DTI, depression, suicide

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[Abstract:0430][OCD]

Sociodemographic and clinical characteristics of children and adolescents with obsessive compulsive disorder, a data from a university hospital in Turkey

[Meryem Ozlem Kutuk¹](#), [Fevziye Toros²](#), [Ali Evren Tufan³](#), [Sema Erden⁴](#), [Figen Sogut⁵](#), [Gulen Guler²](#), [Veli Yildirim²](#), [Sati Sanberk⁶](#)

¹Department of Child and Adolescent Psychiatry, Baskent University, Adana, Turkey

²Department of Child and Adolescent Psychiatry, Mersin University, Mersin, Turkey

³Department of Child and Adolescent Psychiatry, Abant izzet Baysal University, Bolu, Turkey

⁴Department of Health Occupation High School, Mersin University, Mersin, Turkey

⁵Department of Audiology, Hacettepe University, Ankara, Turkey

⁶Department of Child and Adolescent Psychiatry, Adana Ekrem Tok Hospital, Adana, Turkey

e-mail address: dr.gulen@hotmail.com

OBJECTIVE: Obsessive compulsive disorder (OCD) is a time consuming and chronic disorder characterized by obsessions and compulsions that can start before age of eighteen and can be associated with significant impairments in academic, social and family functioning. The aim of the study is to find out the sociodemographic and clinical characteristics of children and adolescents with OCD at outpatient clinic of a university hospital in Turkey.

METHODS: We have retrospectively assessed the sociodemographic and clinical features by investigating the files of children and adolescents who were diagnosed primarily as OCD according to Diagnostic and Statistical Manual of Mental Health IV, Text Revision (DSM-IV-TR) at the outpatient clinic of child and adolescent psychiatry department of Mersin University School of Medicine.

RESULTS: One hundred and eighty eight (42.7%) of 440 cases in our study were determined to be girls, while 252 (57.3%) boys; the mean age was 11.08 ± 3.363 years and 70.2% of the cases were at elementary or secondary school, 19.1% at high school. 23.9% of the cases had no comorbid disorder, 49.5% of the cases had one comorbid disorder, 26.6% of the cases had two comorbid disorders. Attention deficit hyperactivity disorder (ADHD) (26.8%), Generalized Anxiety Disorder (GAD) (16.6%) and Tic Disorders (TD) (10.2%) have been found to be the most common comorbidities among our cases. Cleaning and contamination obsessions (48.9%), cleaning and washing compulsions (32%) have been found to be the most common obsessions and compulsions. The children's depression inventory (CDI), Children's Trait anxiety inventory (CTAI), and Maudsley Obsessive Compulsive Questionnaire (MOCQ) scores have been found to be positively and significantly correlated with each other.

CONCLUSIONS: In our opinion, further studies on OCD in children and adolescents are required all over the world. In addition, intensive efforts should be made to establish a global consensus regarding a standard assessment package for early onset OCD and more cross-culturally valid versions of instruments in order to be able to compare the studies specifically aimed at assessing the sociodemographic, clinical, and prognostic aspects of OCD across different countries.

Keywords: early onset obsessive compulsive disorder, comorbidity, sociodemographic features, child psychiatry

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[Abstract:0434][Mood disorders]

Association between dissociative symptoms and venlafaxine treatment response in major depressive patients: an open-longitudinal study

Hasan Belli¹, Cenk Ural¹, Mahir Akbudak², Melek Kanarya Vardar¹, Mustafa Solmaz¹¹Department of Psychiatry, Bagcilar Education And Research Hospital, Istanbul, Turkey²Mardin State Hospital, Mardin, Turkey

e-mail address: mahirakbudak@outlook.com

OBJECTIVE: Dissociative symptoms may co-exist with many psychiatric diseases such as borderline personality disorder, conversion disorder, obsessive-compulsive disorder, schizophrenia, and panic disorder. Results of some studies depict that co-exist dissociative symptoms negatively affect psychotherapeutic and psychopharmacologic treatment outcomes. The relationship between depression and dissociation is also known. In this study we aimed to examine whether or not dissociative experiences affect the response to major depressive disorder (MDD) drug treatment. For this purpose, standard dose of venlafaxine was preferred for treatment.

METHODS: Patients were diagnosed with the experienced clinicians as MDD according to DSM-IV-TR criteria. 40 patients with MDD were included in the study. Venlafaxine treatment with increasing dose was administered to each patient during a 10-week period. Doses of venlafaxine were increased to 75 and 150 mg by 4-week intervals after 2-week treatment with venlafaxine 37.5 mg. The Beck Depression Inventory (BDI) and the Dissociation Questionnaire (DIS-Q) were administered to the patients at the beginning of the study. Patients were divided into two groups based on DIS-Q scores. BDI was administered again to both groups at the end of 10-week treatment.

RESULTS: No statistically significant difference was found between sociodemographic and clinical variables of the depression patients who were divided into two groups based on cutoff score of DIS-Q scale (2.5) as low and high DIS-Q groups. At the end of 10-week treatments of low and high DIS-Q groups, average decreases in BD scores were 14.47 ± 10.66 (Min-max=-2-39) and 10.26 ± 12.20 (Min-max=-4-32), respectively. Decreases in BD scores in both groups in response to the treatment were statistically significant ($p < 0.05$). Difference of absolute values of decreases in BDI scores between the groups was not statistically significant ($z = -1.328$, $p = 0.1840$). However, the difference between the amounts of decrease in BDI scores as percentage was found as $48.03\% \pm 29.03$ in low DIS-Q group and $27.06\% \pm 32.91$ in high DIS-Q group, and the difference was found to be statistically significant ($z = -2.167$, $p = 0.0302$).

CONCLUSIONS: Efficacy of venlafaxine, a serotonin-noradrenalin reuptake inhibitor, in the psychopharmacologic treatment of MDD has been demonstrated in many studies. 10-week open-ended longitudinal venlafaxine at standard dosage was utilized in this present study. No drugs other than venlafaxine were administered to the patients. Considering these results, we assume that response to pharmacotherapeutic treatment is negatively influenced by comorbid dissociative symptoms during the course of MDD. Taking the data into account, it can be thought that the relationship between MDD and dissociative symptoms is influential on the treatment administered via psychotropic medication. Consequently, we propose that dissociative symptoms should be handled and evaluated at the beginning of treatment and required measures should be employed in planning personal treatment. Examination of dissociative symptoms may ease understanding resistance to treatment and help us plan better strategies of psychotherapy and pharmacotherapy.

Keywords: major depression, dissociation, venlafaxine, response to treatment

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[Abstract:0443][Personality disorders]**Eysenck personality characteristics of epilepsy patients and its effect on quality of life**

[Ebru Findikli¹](#), [Filiz Izci²](#), [Mehmet Akif Camkurt³](#), [Deniz Tuncel⁴](#), [Merve Cosgun Sahin¹](#), [Muzaffer Yigit Kuran⁵](#), [Mehmet Fatih Karaaslan¹](#)

¹Department of Psychiatry, Sutcuimam University, Kahramanmaras, Turkey

²Department of Psychiatry, Bilim University, Istanbul, Turkey

³Afsin State Hospital, Kahramanmaras, Turkey

⁴Department of Neurology, Sutcuimam University, Kahramanmaras, Turkey

⁵Basaksehir Hospital, Istanbul, Turkey

e-mail address: ebrukanmaz@gmail.com

OBJECTIVE: The aim of our study was to examine the impact of personality traits of epilepsy patients on their quality of life.

METHODS: A total of 76 epilepsy patients and 78 healthy controls between the ages 18–65 were matched for age and gender to be included in the study. The patients had to also complete the following forms; sociodemographic and clinic data form, Eysenck Personality Questionnaire (EPQ), Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and Short Form Health Survey (SF-36).

RESULTS: The BDI scores and the BAI scores were significantly higher for the epilepsy group compared to the control group. Between the epilepsy group and the control group; the EPQ neuroticism and lie subscale scores were shown to be significantly higher in the epilepsy group. According to the SF-36 scores; physical functioning, physical role functioning, social role functioning, emotional role functioning, mental health, and pain scores were significantly lower in the epilepsy group compared to the control group. It was discovered that there is a significant relationship between BDI and BAI scores and quality of life and personality inventory scores.

CONCLUSIONS: It was found that the epilepsy patients had a lower quality of life compared with the control group, which was found to be worsened with added conditions such as anxiety and depression.

Furthermore, high neuroticism scores were shown to have negatively affected epilepsy patient's quality of life, while a higher frequency of epileptic seizures negatively affects social functioning. The increase in disease duration also adversely affects the perception of general health and mental health.

Keywords: epilepsy, personality, anxiety, depression, quality of life

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[Abstract:0452][Psychotherapy]**Investigation of emotional schemas, meta-cognitive processes and coping strategies relationships between the adolescents presented to psychiatry clinic and their mothers**

[Kaasim Fatih Yavuz¹](#), [Tugba Kara²](#), [Sevinc Ulusoy³](#), [Ayse Fulya Maner¹](#)

¹Bakirkoy Psychiatric Hospital, Istanbul, Turkey

²Bor State Hospital, Nigde, Turkey

³Elazig Psychiatric Hospital, Elazig, Turkey

e-mail address: kfatihyavuz@yahoo.com

OBJECTIVES: In experimental studies which have been done from past to present, it was demonstrated that there are consistent relationships between the individual's perception about his/ her parents and psychopathology. This study explored the relationships of the meta-cognitive processes, meta-cognitive beliefs, and emotional schemas, which have been demonstrated to be expected by the psychopathology between mothers and children.

METHODS: Eighty-two adolescents aged 14-18 who were treated at the Bakirkoy Psychiatric Hospital's Child and Adolescent Outpatient Clinic participated in the study with their parents while 80 adolescents who do not have any psychiatric history and psychiatric problem and their parents formed the control group. Adolescents and their mothers completed measures of Socio-demographic Data Form, Young-Rygh Avoidance Inventory, Leahy Emotional Schema Scale, Ruminative Thinking Style Scale, Meta Cognitive Inventory-30, and White Bear Suppression Inventory.

RESULTS: In our study, behavioral/ somatic avoidance attitude was found to have statistically higher in adolescents of the case group than the control group. As a whole and considering the case and control groups separately, it was determined that mothers use cognitive/

emotional and behavioral/ somatic avoidance attitudes more than their children. We determined that the adolescents in case group use the way of thought suppression to cope with undesired thoughts more than their mothers. In evaluations of Metacognitive Attitudes, in the subscale scores of cognitive awareness alone, the score was higher in adolescents in the case group than in mothers. According to other results obtained in our study, dimensions of metacognitive beliefs including 'the need to control the thoughts', 'cognitive confidence' and 'unmanageable ness and danger' were significantly higher in adolescents of the case group than those in the control group. Mean Leahy Emotional Schema Scale scores of 'uncontrollability' and 'rumination' were determined to be significantly higher in adolescents of the case group than the control group. It was determined that the adolescents in control group use the sub-dimensions of 'clearness' and 'consensus' more than those in the patient group. It was also found that scores of 'emotional avoidance' and 'rationality' sub-scales of the mothers in case group were significantly higher than those in the control group and mean sub-scale scores of 'consensus' are higher among the mothers in control group than the mothers in case group. When the adolescents in case group and their mothers are compared, it was determined that sub-scale scores of 'uncontrollability' and 'weakness against emotions' of the adolescents in case group are higher than those in mothers and the mothers use the dimensions of 'clearness', 'rationality' and 'emotional avoidance' to cope with their emotions more than their children.

CONCLUSIONS: Behavioral/ somatic avoidance attitude, rumination and thought suppression scores in the patient group were higher than those in the control group. These results present data about that the adolescents in the patient group use mostly pathological ways when faced with stressful stimuli.

Keywords: adolescent, mothers, psychopathology

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[Abstract:0454][ADHD]

Relationship of the attention deficit and hyperactivity disorder and birth order

Esra Yurumez¹, Cagatay Ugur²

¹Department of Child and Adolescent Psychiatry, Dr. Ridvan EGE Hospital, Ufuk University, Ankara, Turkey

²Department of Child and Adolescent Psychiatry, Ankara Pediatric Hematology-Oncology Training and Research Hospital, Ankara, Turkey

e-mail address: mevadilek@gmail.com

OBJECTIVE: The purpose of this study is to examine the relation between birth order, number of siblings, and prevalence of Attention Deficit Hyperactivity Disorder (ADHD), among boys and girls born by vaginal delivery.

METHODS: Sixty six children with ADHD and 77 healthy children were included. Diagnoses were made using criteria from the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), based on face-to-face interviews with the children and their parents. The Turgay DSM-IV-Based Child and Adolescent Disruptive Behavioral Disorders Screening and Rating Scale (T-DSM-IV-S) was completed by parents, and sociodemographic features were assessed. Participants were also administered the Schedule for Affective Disorders and Schizophrenia. The ADHD children's scores were compared with those of the control group.

RESULTS: The ADHD children had between 1 and 4 siblings. 43 (65.2%) of them were the first child in their family, 20 (30.3%) were the second child, 2 (3%) were the third child, and 1 (1.5%) of them was the fourth child. In the control group, the children had between 1 and 3 siblings. 48 (62.3%) of the 77 healthy children were the first in their family, 24 (31.2%) were second, and 5 (6.5%) were third. The birth order of the two groups was not significantly different. Likewise, there was no significant difference between the two groups in terms of gender and scores on the scale. However, the number of siblings was correlated to the hyperactivity-impulsivity subscale scores of the ADHD scale.

CONCLUSIONS: This study examined several aspects of the relationship between ADHD and birth order. In order to contribute in this area, we aimed to compare the birth order and number of siblings in a group of ADHD children vs. a control group. It is clear that further studies on birth order and family structure are needed, as ADHD has a lot of unknown and varied etiological factors.

Keywords: attention-deficit, hyperactivity disorder, birth order, risk factors

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[Abstract:0459][Neuroscience: Neuroimaging-Genetic Biomarkers]**Optical coherence tomography findings in major depression: duration of the latest episode is correlated with ganglion cell inner plexiform layer and nasal retinal fiber layer thickness**Mesut Yildiz¹, Sait Alim², Sedat Batmaz¹, Selim Demir², Emrah Songur¹, Huseyin Ortak², Kadir Demirci³¹Gaziosmanpasa University, Department of Psychiatry, School of Medicine, Tokat, Turkey²Gaziosmanpasa University, Department of Ophthalmology, School of Medicine, Tokat, Turkey³Department of Psychiatry, Suleymen Demirel University, School of Medicine, Isparta, Turkey

e-mail address: mesutdr@gmail.com

OBJECTIVE: Major depressive disorder (MDD) is associated with cellular loss in key brain regions. Optical coherence tomography (OCT) is a relatively new, non-invasive imaging technique that has been used increasingly to diagnose and manage a variety of retinal diseases. Since the axons in retinal nerve fiber layer (RNFL) are non-myelinated within the retina, OCT has been used in various neurodegenerative diseases to visualize the process of neurodegeneration. Decreases in RNFL and ganglion cell inner plexiform layer (GCIPL) thicknesses were observed in patients with schizophrenia. To date, there is no clinical research investigating OCT parameters in patients with MDD.

METHODS: The sample consisted of 58 depressed participants and 57 healthy control subjects. Socio-demographic data was collected by using a questionnaire and all participants were given Quick Inventory of Depressive Symptoms – Self Report, 16 Item (QIDS). We compared the RNFL thickness, GCIPL thickness, total and mean macular volume (MV) in 58 MDD patients and 57 healthy controls, and examined their correlation with clinical variables of depression; such as age at onset, total number of episodes, total number of suicide attempts, duration of the latest episode, and QIDS total score.

RESULTS: The study groups did not differ significantly in terms of age, sex, marital status, SES, and smoking status. About 70% of depressed patients were in their first episode, 51 (88%) of them were female, 15 patients (25%) were using antidepressant treatment and the mean QIDS score for the depressed group was 12.43 ± 4.91 . Depressed patients were not different from the healthy controls with regard to OCT parameters. GCIPL and nasal RNFL were correlated with the duration of the latest depressive episode. The GCIPL thickness was significantly associated with a positive family history of psychiatric disorder, and the duration of the latest depressive episode. Finally, the total RNFL thickness was significantly associated with both a family history of psychiatric disorder, and the total QIDS score.

CONCLUSIONS: Patients with MDD were not different from the healthy controls with regard to OCT parameters. The low score of QIDS scale and the low rate of the history of previous suicide attempts (0.12%) in our depressed group indicates a mild level of depression. The female preponderance in the depressed group, and the heterogeneity of the depressed group might have played a role on these results, as well. The duration of the latest episode was negatively and weakly correlated with the GCIPL and nasal RNFL thickness. Decreased GCL and IPL thickness was determined in patients with schizophrenia both parameters were correlated with disorder parameters such as disorder duration. The small sample size of the present study, and having mild depression in the depressed group were two important limitations of this study. Since, it was demonstrated that antidepressant treatment changed some retinal parameters, antidepressant treatment might have a confounding effect on our results.

Larger studies including depressed patients of different severity, including structured clinical interviews and controlling for the effect of antidepressant treatment would provide better results

Keywords: major depression, optical coherence tomography, ganglion cell inner plexiform layer, retinal nerve fiber layer

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[Abstract:0475][Dependencies]

Evaluating the efficacy of the addiction program of probation: a controlled study

Ebru Aldemir¹, Gunes Berk², Beste Ongun Alkan³, Hakan Coskunol¹¹Ege Universitesi Madde Bagimlilik, Toksikoloji ve Ilac Bilimleri Enstitusu, Izmir, Turkey²Ozel Memorial Antalya Hastanesi, Antalya, Turkey³McGrew Behavior Intervention Services, California, USA

e-mail address: ozturk.ebru2000@gmail.com

OBJECTIVE: The aim of this study is to evaluate the efficacy of "Addiction Program of Probation" which is prepared by the Substance Abuse Treatment Commission of Ministry of Health. This program aims to educate and motivate the probationers and make them to participate in an addiction program voluntarily and actively.

METHODS: The sample of this study was consisted of probationers who were referred to Ege University Institute on Drug Abuse, Toxicology and Pharmaceutical Science by probation offices of Izmir in February, 2010. Literate probationers aged above 18, who fulfilled the SCID-I criteria for substance dependence or who had positive urine sample for illegal drugs though not fulfilling the SCID-I criteria were included. Sociodemographic data, drug use characteristics, physical and mental history, social and judicial status were obtained. The probationers were distributed respectively to three kinds of treatment subgroups: 1) Addiction Program of Probation (APP) Group (n=28) 2) Motivational Interviewing (MI) Group (n=30) 3) Individual Interventions Group (n=30). The efficacy of the treatment programs were assessed by the State Anxiety Inventory, the World Health Organization Quality of Life-Brief form (WHOQOL-Bref), the Treatment Motivation Questionnaire, and likert-type scales which evaluate the level of importance given to quitting drugs, level of being ready to quitting drugs and level of craving; and, three urine toxicological analyses performed in two weeks intervals.

RESULTS: The mean age of the participants (n=88) was 32.5 ± 9.8 . Of all the participants, 47.7% (n=42) were married, 43.2% (n=38) were primary school graduates, 56.8% were self-employed. Cannabis was the most frequently used substance among the group (83%, n=73). The onset of the substance use was at the age of 20.5 ± 7.1 , mean duration of substance use was 137.5 ± 129.9 months and mean sobriety period was 6.8 ± 9.6 months. When the efficacy of three treatment groups were analyzed; the participants in the APP group had increased levels of being ready to quitting drugs. In the MI group; the levels of importance given to quitting drugs and being ready for it were increased and the frequency and severity of craving were decreased. In the individual intervention group, the mental and physical health were improved, the confidence in treatment and levels of being ready to quit the drugs were increased, and finally the severity, frequency and duration of craving were decreased. There were significant decrease in positive urine samples of all the groups but the most obvious decrease was observed among the individual intervention group.

CONCLUSIONS: Because of changing only "the level of being ready to quitting drugs", APP is thought to be an inadequate program compared to MI and individual interventions. It seems as a standard and practical method for preparation before intensive treatment programs.

Keywords: drug abuser, individual intervention, motivational interviewing, probation

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[Abstract:0489][Schizophrenia and other psychotic disorders]**Heme catabolism in first-episode psychosis patients: a case-control study**Ugur Omer Yanar¹, Necmettin Kocak², [Abdullah Bolu](#)³, Taner Oznur³, Serdar Hira⁴, Omer Ozcan⁵, Mehmet Alpay Ates⁶, Mustafa Gultepe⁵¹Sarikamis Military Hospital, Kars, Turkey²Turkish Coast Guard Command, Ankara, Turkey³Department of Psychiatry, Gulhane Military Medical School, Ankara, Turkey⁴Tatvan Military Hospital, Kars, Turkey⁵Department of Biochemistry, Haydarpasa Military Hospital, Istanbul, Turkey⁶Department of Psychiatry, Haydarpasa Military Hospital, Istanbul, Turkeye-mail address: abdullah_bolu@yahoo.com

OBJECTIVE: The function of the heme molecule and the activity of the heme oxygenase (HO) enzyme, as the end products of this pathway, have been examined in a number of studies. In particular, researchers have focused on the importance of this pathway, in which HO may undergo changes in oxidative stress status and the end products of the pathway have important functions in cells. Cell damage caused by oxidative stress may affect brain structure and functions. Neuropsychiatric disorders, especially in patients with schizophrenia, were observed to involve disruptions in neurodevelopment processes and membrane signaling. This study aimed to examine heme catabolism in young first-episode patients as a representation of the initiation of psychotic disease.

METHODS: The study included 36 untreated acute psychosis patients who were diagnosed according to the DMS-IV criteria. In addition, 35 healthy controls who visited the hospital for routine physical examinations were enrolled as the control group.

RESULTS: The values of HO activity were 0.30 ± 0.27 and 0.36 ± 0.25 in the patient group and the control group, respectively. There were no significant differences in HO activity between the two groups ($p=0.384$). zinc protoporphyrin (ZnPP) levels were significantly different in the comparison between the two groups ($p=0.001$, patient group; 41.4 ± 9.8 , control group; 31.4 ± 13.6). Sixty-six percent of patients had an HO enzyme activity less than 0.37 mmol/h/mg protein, and 52% of the controls had the same value. Patients with psychosis exhibited moderate positive correlations between ferritin and ZnPP ($r=0.331$, $p=0.049$) and between iron and indirect bilirubin ($r=0.396$, $p=0.023$). The control groups exhibited a moderate positive correlation between ferritin and ZnPP levels ($r=0.505$, $p=0.010$).

CONCLUSIONS: This case-control study was conducted to determine changes associated with heme catabolism in patients with first-episode psychosis and has two prominent findings. The first finding is the lack of a statistically significant difference in HO enzyme activity between the two groups. However, the mean HO activity was found to be lower in patients than in the control group. The second important finding is that ZnPP levels are higher in the study group than in the control group. The failure to synthesize heme, which is the substrate of the HO enzyme, may have led to the detection of low HO activity in our patient group. Previous studies reported that ZnPP can inhibit the activity of the HO enzyme. Therefore, in the patient group, we found high ZnPP levels that may have led to the inhibition of HO enzyme activity. In addition, the cytochrome P450 enzyme, which is involved with the heme molecule, is required for HO activity in vivo. Insufficiency of heme synthesis may affect cytochrome P450 activity, and as a result, HO activity may decrease. In our study, the relatively low HO activity in the patient group may be related to cytochrome P450 enzymes that are unable to function due to heme synthesis disorders.

Keywords: first-episode, heme catabolism, psychosis

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[Abstract:0513][ADHD]**Clinical characteristics and treatment response in preschool ADHD: experience from a tertiary referral center**[Ozalp Ekinci](#), Yunus Killi, Serkan Gunes, Recep Bostan, Berna Polat, Nuran Ekinci, Halenur Teke

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

e-mail address: ozalpekinci@yahoo.com

OBJECTIVE: Although ADHD is typically first diagnosed in elementary school years, onset is commonly in preschool period. This retrospective chart review study examined the clinical characteristics and treatment response of preschool aged children with ADHD

from a tertiary referral center.

METHODS: A total of 112 children, aged before 72 months of age, with documented DSM-IV ADHD diagnosis (including subtypes) were included. For a stable and valid ADHD diagnosis, only the patients who fulfilled DSM-IV diagnostic criteria on at least two separate clinical visits were included. The subjects with the diagnosis of intellectual disability, autism spectrum disorder and those who use of psychotropic medications other than study medications were excluded. Clinical and familial characteristics of the sample were obtained from the medical records and structured psychiatric interviews according to the DSM-IV (SCID-I). Treatments were grouped as follows: "Behavioral treatment", "Methylphenidate (MPH)" and "Risperidone". Improvement and side effects (at the 8th week) were assessed with Clinical Global Impression-Improvement (CGI-I) Scale and the adverse effect scale developed by the authors, respectively. For the secondary analysis of CGI-I, the scores of "much improved" and "very much improved" were collected and labeled as "general improved". Treatment compliance was defined as the continuation of the selected treatment for at least 4 months on almost everyday.

RESULTS: The mean age of the sample was 56.9 ± 12.7 months, 69% (n=78) were boys. The most frequent primary complaint was hyperactivity, followed by aggression and impulsivity. 75.8% of the sample had ADHD combined type diagnosis while the frequency of predominantly hyperactive-impulsive type was 18.8%. One-third of our sample had a comorbid DSM-IV diagnosis and the most frequent diagnoses were oppositional defiant disorder (ODD) (20.7%), anxiety disorder (10.7%), and conduct disorder (4%). At the 8th week, the frequency of general improvement was highest in the methylphenidate (MPH) group (80%), followed by behavioral (47%), and risperidone treatments (43%) (MPH vs. risperidone: $p=0.023$; MPH vs. behavioral treatment: $p=0.018$). Treatment compliance at the 16th week was 87% for risperidone, 76.1% for MPH and 36.3% for behavioral treatment. Both the risperidone ($p=0.001$) and MPH ($p=0.002$) treatments had a higher compliance than behavioral treatment. The frequency of any adverse effects was 38% and 26.8% in the MPH and risperidone groups, respectively ($p=0.260$). The frequency of severe adverse effects was very low in both groups (n=1). None of the study variables were found to be associated with the efficacy of MPH.

CONCLUSIONS: In this preliminary study on Turkish preschool children with ADHD, the clinical characteristics of our sample were found to be broadly similar to the previous studies' findings. MPH treatment was found to have a high level of efficacy and treatment compliance but a low level of tolerability. Stimulant treatment may be considered as an easy-to-use and effective treatment choice in preschool children with ADHD. However, because of the low tolerability, a close follow-up is a must. Psychosocial interventions, although being free of adverse effect risk, have moderate efficacy, and low treatment compliance. Certain psychosocial factors might be associated with the low efficacy of behavioral interventions.

Keywords: ADHD, preschool, methylphenidate

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[Abstract:0523][Autism]

Relationship between theory of mind deficits in parents of children with autism spectrum disorder and the severity of the disorder

[Mehmet Ayhan Congologlu](#), [Mahmoud Albaidheen](#), [Koray Kara](#)

Department of Child and Adolescent Psychiatry, Gulhane Military Medical Academy, Ankara, Turkey
e-mail address: ayhancongologlu@gmail.com

OBJECTIVE: Autism Spectrum Disorder (ASD) is a chronic neurodevelopmental disorder in childhood which is characterized with behavioral abnormalities and impairments in language and social abilities. The aim of this study is to examine theory of mind deficits in parents of children with Autism Spectrum Disorder and the relationship between these deficits and the severity of ASD.

METHODS: The study sample consisted parents of 60 children between ages 4–12 and diagnosed with ASD according to DSM-IV-TR. Children with ASD was divided into two groups as mild-moderate ASD (n=30, 28 boys, 2 girls) and severe ASD (n=30, 24 boys, 4 girls). In order to categorize the symptom variability and severity of ASD, the Childhood Autism Rating Scale was used. Dokuz Eylul Theory of Mind Index (DEToMI) was used to determine theory of mind deficits in parents.

RESULTS: There were no statistically significant differences between the two ASD groups in terms of gender ($p=0.13$), diagnosis age ($p=0.49$), and comorbidity ($p=0.30$). Maternal age ($p=0.68$), paternal age ($p=0.89$), maternal educational level ($p=0.15$), and paternal educational level ($p=0.86$) did not differ significantly between the two groups. Total point, first-degree false beliefs, second-degree false belief, empathy, irony and Faux pas subscores of Mother's DEToMI scale were similar between the groups. Mothers of severe ASD showed

lower performance in understanding metaphorical expressions ($p=0.02$). No significant differences were found in father's DEToMI scale scores.

CONCLUSIONS: Mothers of severe ASD showed lower performance in understanding metaphorical expressions. However these findings should be supported with further studies with larger sample size.

Keywords: ASD, theory of mind, parents, familial transmission

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[Abstract:0530][Autism]

Subthreshold autistic symptoms: prevalence, comorbidity with psychiatric disorders, and effect on theory of mind

Unsal Aydinoglu¹, Elif Oral², Halil Ozcan³, Atakan Yucel⁴

¹Dr. Munif Islamoglu State Hospital, Kastamonu, Turkey

²Department of Psychiatry, Katip Celebi University, Izmir, Turkey

³Department of Psychiatry, Ataturk University, Erzurum, Turkey

⁴Department of Psychiatry, Erzurum Region Education and Research Hospital, Erzurum, Turkey

e-mail address: unsalaydinoglu@hotmail.com

OBJECTIVE: Autism is a neurodevelopmental disorder that occurs with the delay of social emotional functionality and the ability of interaction and with restricted interests and behaviors. It was reported that some subthreshold forms of the disorder occurs commonly in the population. Theory of mind describe the capacity of interpreting the others mental states underlying their behaviors. Deficiency in theory of mind ability and unexplainable social-professional deficiencies may be related with the subthreshold autistic symptoms. This study was aimed to identify the prevalence of subthreshold autistic symptoms and effects on theory of mind performances, the career choices, cognitive functions, quality of life, and psychiatric comorbidities in affected persons in a university student sample.

METHODS: The study was designed as a biphasic study. In first phase, the prevalence of subthreshold autistic symptoms was determined by administering Autistic Spectrum Quotient(ASQ). At the second step, participants with high and low scores than the cut-off value of the quotient were classified in two groups. Socio-demographic data form, Reading Mind in the Eyes Test, Facial Emotion Recognition Test, Facial Emotion Discremination Test, Trail Making Test, Verbal Fluency Test, Sequence Number Range Test, Handedness Quotient, SF-36 Quality of Life Scale, and Perceived Family Support Survey were administered to both study groups. Additionally, participants were interviewed by a clinician.

RESULTS: ASQ was administered on 2,485 participants. 39 participants with high scores and 42 students with low scores in ASQ, accepted to practise other advanced tests. We found that males had higher scores in ASQ. It was not significant but all the mean scores of ASQ were higher in participants that were majoring in science. On the other hand, the highest ratio of participants have higher score by gender and school feature were male students majoring in science. If we look at the differences between groups have higher scores (first group, having autistic symptoms) and lower scores (second group, control) in ASQ, we understood that the ratio of participants living in urban areas and with their families at home was higher in the second group. There were no significant differences between the groups by their prenatal and delivery stories. Febrile convulsion was significantly higher in the first group. As a result of psychiatric measurements of participants we found that the first group had significantly more mood, anxiety, and personality disorders than the second group. Theory of mind and neurocognitive performances, quality of life scores were significantly lower in the first group.

CONCLUSIONS: Autism was traditionally considered as a clinical condition distinct from the general population, but recent studies suggests that autistic traits are continuously distributed across the population. Autism-Spectrum Quotient is widely used in research and clinical practice to quantify autistic traits. Our study is the first study that examined the prevalence and effects of this subthreshold autistic symptoms across such a larger sample in Turkey. Our findings supported other studies previously reported gender differences in terms of subthreshold autistic symptoms. Additionally we found differences between the groups with regard to theory of mind and neurocognitive performances, psychiatric comorbidities, and quality of life.

Keywords: subthreshold autistic symptoms, theory of mind, quality of life

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[Abstract:0531][Mood disorders]

Metabolic syndrome and its components in adolescents with bipolar and psychotic disorders

Canem Kavurma¹, Halil Kara¹, Sermin Yalin Sapmaz², Deniz Ozturk Kara³¹Child and Adolescent Psychiatry Clinic, Elazig Psychiatry Hospital, Elazig, Turkey²Department of Child and Adolescent Psychiatry, Celal Bayar University, School of Medicine, Manisa, Turkey³Department of Dermatology, Elazig Education and Research Hospital, Elazig, Turkey

e-mail address: drhalilkara85@gmail.com

OBJECTIVE: Evidence points to a higher prevalence of metabolic dysfunction in bipolar disorder (BD) and psychotic disorder (PD), but few studies have evaluated the metabolic syndrome (MetS) and its components in adolescents with BD and PD. In this study, we aimed to examine metabolic syndrome and its components in adolescents with BD, PD, and healthy control group.

METHODS: This cross-sectional study was carried out in Elazig Psychiatry Hospital, Child and Adolescent Psychiatry Clinic between the dates of June, 2014 and December, 2014. Adolescents who were 12–18 years of age with BD or PD and who were on psychotropic medications for at least 3 weeks were enrolled. Healthy adolescents matched by age and gender with the subjects were also included. The clinical parameters included body weight, height, body mass index, waist circumference, blood pressure, blood tests such as fasting plasma glucose, serum triglycerides, serum high-density lipoprotein, and serum low-density lipoprotein were recorded.

RESULTS: Twenty-nine adolescents with BD or PD and thirty-four healthy adolescents were evaluated. According to the definitions of MetS and its components, 12 (41.38%) patients were diagnosed with MetS in the case group, while none of the adolescents diagnosed with MetS in the control group. Significantly higher values of waist circumference ($p=0.017$), systolic blood pressure ($p=0.028$) fasting plasma glucose ($p=0.026$), serum triglycerides ($p=0.009$) and significantly lower values of serum high-density lipoprotein ($p=0.009$) were observed in the case group who were diagnosed with MetS. Body mass indices were found significantly higher ($p=0.031$) who use psychotropic medications for at least six months in the study group.

CONCLUSIONS: This study is important in providing help to look through the importance of metabolic syndrome and its components in adolescents with BD and PD in Turkey. It is well-known its importance in adults; however, there is a limited number of studies in the literature that focus on adolescents. Understanding which components of the metabolic syndrome is more compelling in BD or PD when an adolescent is diagnosed with MetS might help in planning appropriate treatment options in the future for these adolescents.

Keywords: adolescents, bipolar disorder, metabolic syndrome, psychotic disorder

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[Abstract:0556][ADHD]

Emotion recognition and theory of mind deficits in children with attention deficit hyperactivity disorder

Nurullah Bolat¹, Damla Eyuboglu², Murat Eyuboglu³, Enis Sargin¹¹Department of Child and Adolescent Psychiatry, Izmir Tepecik Teaching and Research Hospital, Izmir, Turkey²Department of Child and Adolescent Psychiatry, Mardin Women's and Children's Hospital, Mardin, Turkey³Department of Child and Adolescent Psychiatry, Mardin State Hospital, Mardin, Turkey

e-mail address: nurullahbolat@yahoo.com

OBJECTIVE: Children who were diagnosed with attention deficit hyperactivity disorder (ADHD) appeared to represent insufficient social behaviors. This may manifest as rejection by peers and interpersonal discord with other children and adults. Emotion recognition and theory of mind (ToM) abilities are important domains of social cognition. Some authors have reported difficulties in empathy and ToM in children with ADHD. However, several studies did not find any significant difference between ADHD children and control group on the ToM abilities. The aim of this present study was to assess the emotion recognition and theory of mind abilities of children with ADHD.

METHODS: Sixty-nine patients diagnosed with ADHD (48 male and 21 female subjects, with a mean age of 10.03 ± 1.83 years, range 8–15 years) and 69 typically developing children (matched for age and gender; 48 male and 21 female subjects, with a mean age of 10.13 ± 1.96 years, range 8–15 years, without psychiatric or neurological disorder or pharmacological treatment) participated in this study. A semi-structured psychiatric interview (Kiddie-schedule for affective disorders and schizophrenia-present and lifetime version) was administered

in both groups. The study and control group compared on theory of mind tasks and emotion recognition tests. The statistical analyses were performed using SPSS Version 16.0 for Windows. Chi-square, Mann-Whitney U and Spearman's correlation tests were used to analyze the data. A p value <0.05 was considered to indicate statistical significance.

RESULTS: Regarding the first order ToM task scores, second order ToM task scores and total scores of ToM task, ADHD group have significantly lower scores compared to the controls ($p<0.001$). Moreover, cases in the study group performed poorly on comprehension test and unexpected outcomes test ($p<0.001$). The findings showed positive correlation between total ToM scores and unexpected outcomes scores ($r=0.39$, $p=0.001$), unexpected outcomes scores and comprehension test scores ($r=0.40$, $p=0.001$) in the study group.

CONCLUSIONS: Our results indicate that ADHD seem to have a negative impact on emotion recognition and theory of mind abilities. The findings support the importance of assessing emotion recognition and ToM abilities of children and adolescents with ADHD. Successful social interaction is critically dependent upon our ability to understand other people's mind and their feelings. Impaired interpersonal relationships may be of crucial importance for the prognosis of children with ADHD on both short and long-term. Our results emphasized the potential role of emotion recognition and ToM deficits on inadequate social behaviors of children and adolescents with ADHD. These findings suggested that there was a need for developing new treatment modalities on emotion recognition and ToM deficits which could provide more positive outcomes in ADHD patients.

Keywords: attention deficit hyperactivity disorder, emotion recognition, theory of mind

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[Abstract:0580][OCD]

Vitamin D levels in children and adolescents with obsessive-compulsive disorder

Ipek Percinel¹, Kemal Utku Yazici¹, Bilal Ustundag²

¹Department of Child and Adolescent Psychiatry, Firat University, School of Medicine, Elazig, Turkey

²Department of Biochemistry, Firat University, School of Medicine, Elazig, Turkey

e-mail address: ipek.pr@hotmail.com

OBJECTIVE: This study aims to evaluate the levels of vitamin D and vitamin D related parameters of serum calcium, serum phosphorus and alkaline phosphatase in children and adolescents newly diagnosed with obsessive-compulsive disorder (OCD) and received no psychotropic treatment previously and to compare these results with those of healthy controls.

METHODS: Sixty patients diagnosed with OCD and 59 healthy controls aged between 7 and 15 years of age were enrolled in our study. The Schedule for Affective Disorders and Schizophrenia for School Aged Children - Present and Lifetime Version which is a semi-structured interview was used to make the diagnosis. Intelligence level of patients was assessed using Wechsler Intelligence Scale for Children-Revised short form (WISC-R). The patients, who had a comorbid psychiatric disorder, had a history of psychotropic medication use, and acute or chronic systemic disease, and scored under 80 on WISC-R, were excluded in the study. Yale Brown Obsession Compulsion Scale (YBOCS), Children's Depression Inventory (CDI), and State-Trait Anxiety Inventory (STAI) were used during the clinical examination.

RESULTS: No meaningful socio-demographic differences were observed between the groups. The results of evaluations did not show meaningful differences in vitamin D, serum calcium, serum phosphorus, and alkaline phosphatase levels between OCD patients and healthy controls.

CONCLUSIONS: Recent studies have indicated that vitamin D plays a significant role in the development of the nervous system and the regulation of its functions. Investigators have reported that vitamin D is very important for normal brain development and its functions, plays a role in various tasks in the nervous system such as cell proliferation, differentiation and neurotransmission, and shows neurotrophic and neuroprotective effects. Various preclinical and clinical studies have drawn attention to the fact that vitamin D deficiency causes dysfunctional changes in the brain, and may increase the risk of incidence of neuropsychiatric diseases such as major depression, autism, and schizophrenia. In a preclinical study reporting a specific impairment of perseverative response inhibition in the case of vitamin D deficiency, it was suggested that this situation may be associated with stereotyped/ repetitive behaviors observed in disorders such as OCD and autism. In this study, no significant differences were observed in levels of vitamin D, serum calcium, serum phosphorus, and alkaline phosphatase in children and adolescents diagnosed with OCD. To our knowledge, this is the first study to evaluate the levels of vitamin D and related parameters in children and adolescents with OCD. Further preclinical and randomized controlled studies with larger sample size are needed.

Keywords: adolescent, child, obsessive compulsive disorder, vitamin D

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[Abstract:0587][Others]

The sociodemographic factors and comorbidities in children and adolescents with gender dysphoria

[Ayse Burcu Ayaz](#)

Marmara University Pendik Training and Research Hospital, Istanbul

e-mail address: drburcu2000@yahoo.com

OBJECTIVE: Gender dysphoria (GD) is a condition in which a child's subjectively felt identity and gender are not congruent with his/ her biological sex. The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) replaced the diagnostic term "Gender Identity Disorder" with the term "Gender Dysphoria" by sweeping away the definition "disorder", and this new term implies a temporary mental state rather than all-encompassing disorder, a change that helps to remove the stigma transgender people face by being labeled "disordered". Estimates of the prevalence of GD range from a lower bound of 0.05% in Netherlands and Belgium to 0.5% of Massachusetts adults to 1.2% of New Zealand high school students. Unfortunately, a population-based study on the broad spectrum of GD in Turkey has not implemented yet. Although GD is seen mostly in preschool children, the age of clinical referral depends on the cultural and social norms. It is estimated that about 0.005% to 0.014% of males and 0.002% to 0.003% of females would be diagnosed with GD, based on current diagnostic criteria. A mutual interaction between biological factors, family dynamics, and cultural values occur during the constitution of the sense of gender identity. These adolescents can display impulsive and uncontrolled behaviors, and harm themselves by having unprotected and random same sex intercourses. Besides, this condition can be socially disagreeable and may result in comorbid psychiatric disorders. In this present study, it was aimed to explore sociodemographic and family predictors and comorbidities of GD in a group of children between 5-17 years old and compare it with gender matched control group.

METHODS: The Schedule for Affective Disorders and Schizophrenia for School-Age Children were administered to establish the clinical diagnosis. The sociodemographic form, the Child Behaviour Checklist (CBCL), and the Family Assessment Device (FAD) were used to evaluate the developmental milestones, socioeconomic status, the time and type of clinic reference, severity of comorbid psychopathology, and family functioning. 55% of children in the study were male. The mean age of GD group (11.15 ± 4.21) and control group (10.97 ± 3.84) were similar ($t = -0.161$, $p = 0.873$). There were no significant differences between the two groups in terms of gestational age, gestational weight, developmental milestones, and the primary care-giver. The GD group have more chronic medical problems than the control group. In GD group the time from the onset of complaints (6.92 ± 4.15 years) to first presentation to the clinic (9.60 ± 4.32 years) was 2.70 ± 2.47 years. The manner of presentation of GD was 35% in attitude, 10% in games, 10% in attitude and games, 15% in attitude and dressing, 20% in games and dressing, and 10% in attitude, games and dressing.

RESULTS: Low level of income; high rates of family dysfunctioning (communication, roles, affective involvement, and general functioning), parental disagreement, familial psychopathology, and comorbidity (mood disorders, anxiety disorders, and ADHD) were seen in the GD group.

CONCLUSIONS: It is noteworthy that the biological, psychological, and social characteristics of children and adolescents with GD should be evaluated on a multifaceted and multidisciplinary level.

Keywords: gender dysphoria, children, comorbidity

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[Abstract:0613][Dependencies]

Neurocognitive functions in patients with cannabis use disorder: a controlled study

[Ebru Aldemir¹](#), [Hande Celikay¹](#), [Ayse Ender Altintoprak²](#)¹Ege University Institute on Drug Abuse, Toxicology, and Pharmaceutical Science, Izmir, Turkey²Department of Psychiatry, Ege University, School of Medicine, Izmir, Turkey

e-mail address: ozturk.ebru2000@gmail.com

OBJECTIVE: The use of illegal drugs is associated with neurocognitive dysfunctions. These neurocognitive dysfunctions impair the quality of life, academic, and work performance and treatment response. The aim of this study was to compare the neurocognitive functions in terms of executive functions, verbal memory, and learning functions of cannabis users with control subjects without a history of drug abuse.

METHODS: This study included two groups: 1) 35 literate male patients (ages between 18–44 years-old) with cannabis use disorder (according to DSM-5) who were referred to Ege University Institute on Drug Abuse, Toxicology and Pharmaceutical Science, between June 2015 and January 2016. 2) Age-matched 34 literate male control subjects who did not have a history of drug abuse. Intelligence levels of the individuals were evaluated by Raven's Standard Progressive Matrices (RSPM), and individuals with scores below the norm group were not included in the study. Demographic form included sections of sociodemographic data and substance use characteristics. Executive functions were evaluated with Wisconsin Card Sorting Test (WCST), which shows cognitive flexibility and capacity of working memory. Verbal memory and learning functions were evaluated with Oktem Verbal Memory Processes Test.

RESULTS: Mean age was 25.4 ± 5.9 for the cannabis users and 28.2 ± 7.8 for the control group ($p > 0.05$). Mean duration of cannabis use was 7.7 ± 4.7 years, mean amount of cannabis use per week was 20 ± 32.05 grams, mean sobriety period was 22.8 ± 29.1 days. No significant differences were found between the two groups related to the level of psychoticism, anxiety, and depression. According to the Wisconsin Card Sorting Test, the cannabis users had significantly higher scores in overall reaction ($p < 0.001$), overall error ($p < 0.05$), and perseverative reaction ($p < 0.05$) and lower scores in completed categories ($p < 0.05$) than the control group. According to the Oktem Verbal Memory Processes Test, the learning ($p = 0.001$), automatically remembering ($p < 0.01$), and overall remembering ($p < 0.001$) scores were lower than the control group.

CONCLUSIONS: This study indicates that patients with cannabis use disorder have impairment in executive, verbal memory and learning functions. Our results will be discussed with current literature considering the clinical reflections.

Keywords: cannabis use disorder, executive functions, neurocognitive functions

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[Abstract:0618][Dependencies]

Comparison between cannabis abusers and non-substance abusers for planning, problem solving, visual-spatial perception, orientation, focused-sustained attention, learning and memory functions

[Hande Celikay](#), [Ebru Aldemir](#), [Ayse Ender Altintoprak](#)

Ege University Institute on Drug Abuse, Toxicology, and Pharmaceutical Science, Izmir, Turkey
e-mail address: handecelikay@gmail.com

OBJECTIVE: In this study, individuals who have used cannabis at least previous year were compared with individuals who do not have a history of substance use in terms of planning, problem solving, visual-spatial perception, orientation, focused-sustained attention, learning, and memory functions.

METHODS: The sample was selected from 18-44 year-old and literate males ($n=68$) who have presented to the Ege University Institute on Drug Abuse, Toxicology and Pharmaceutical Science between July 2015 and January 2016. The participants divided into two groups: experimental and control group. Experimental group was consisted of individuals who have used cannabis at least previous year ($n=34$), and control group was consisted of individuals who did not have history of substance use ($n=34$). Level of intelligence of the participants was tested by Raven's Standard Progressive Matrices (RSPM) and participants who are below the norm group were not included in the study. Psychopathological symptoms were tested by Symptom Checklist-90-Revised (SCL-90-R). Demographic form included sections of substance use characteristics, criminal history and suicidal attempts. Visual-spatial perception, orientation, visual scanning, focused and sustained attention were measured by the Judgment of Line Orientation (JLO), Stroop Test, and Cancellation Test (CT); learning and memory functions were measured by Serial Digit Learning Test (SDLT), and planning and problem solving abilities were measured by the Tower of London.

RESULTS: The mean age of the participants was 27 ($SD=6.63$), 75% was single ($n=51$), 33.8% was high school graduated, level of income of 30.9% was between 2001 and 3000 TL ($n=21$), and 69.1% was had an occupation ($n=47$). The onset of substance use was at the age of 16 ($SD=4.7$), the mean duration of substance use was 9.2 ($SD=7.8$) years, and the amount of cannabis use per week was (gr) 16.51 ($SD=18.69$). The control group had significantly higher scores than the experimental group in RSPM ($F(1,66)=22.246$, $p=0.000$). In SCL-90-R, depression, and anger scores of experimental group were significantly higher than control group (all $p < 0.05$). People who do not have history of substance use had significantly higher scores on focused attention abilities, especially in error points of 4th and 5th card, and time point of 4th in Stroop Test (all $p < 0.05$). People who have used cannabis at least in previous year completed in CT significantly later and they had poorer performance on JLO (all $p < 0.05$). Individuals who had history of substance use had significantly more unnecessary attacks than control group in the Tower of London task.

CONCLUSIONS: The results of this study support that individuals who use cannabis have significant differences of neuropsychological

functions compared to the individuals who do not have history of substance use. The differences comprise a broad skill set which are executive functions, focused and sustained attention, visual-spatial attention, planning, problem solving, and reaction speed.

Keywords: addiction, cannabis, neuropsychology

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[Abstract:0619][Dependencies]

Comparison of neuropsychological functions in synthetic cannabinoid users and non-users

[Hande Celikay](#), [Ebru Aldemir](#), [Ayse Ender Altintoprak](#)

Ege University Institute on Drug Abuse, Toxicology, and Pharmaceutical Science, Izmir, Turkey

e-mail address: handecelikay@gmail.com

OBJECTIVE: The aim of the study to compare the participants who had been diagnosed with synthetic cannabinoid (SC) use disorder with the participants who had no history of substance abuse according to their neurocognitive functions.

METHODS: The study sample was selected from 18-44 year-old males (n=66). Experimental group had the diagnosis of synthetic cannabinoid (SC) use disorder (n=33), and the control group (n=33) had no history of substance use. The study was conducted between June 2015 and January 2016. Level of intelligence of the participants was tested by the Raven's Standard Progressive Matrices (RSPM) and participants who are below the norm group were not included in the study. Demographic form included section of substance use characteristics, criminal history and suicidal attempts. Psychopathological symptoms were tested by Symptom Checklist-90-Revised (SCL-90-R). Neuropsychological test were administered then, in order of the Judgment of Line Orientation (JLO), Stroop Test, Serial Digit Learning Test (SDLT), Wisconsin Card Sorting Test (WCST), Cancellation Test (CT), Oktem Verbal Memory Processes Test, the Tower of London, and Boston Naming Test.

RESULTS: In the study, mean age of participants was 25 (SD=5.7), 81% was single (n=54), 42.4% was elementary school graduates, income range of 42.4% was between 0–2000 TL, and 65.2% (n=28) had an occupation. The onset of SC use was at the age of 19 (SD=3.7), the mean duration of SC use was 2.51 (SD=1.47) years, and the amount of SC use per week was 13.96 gr (SD=11.52). The participants who use SC had significantly lower scores than the participants who do not use SC in RSPM ($F(1,64)=34.404$, $p<0.05$). However, participants who use SC had significantly higher score in SCL-90-R (all of $p<0.05$). There was a significant difference between experimental and control group in terms of time score in 1th, 4th, and 5th cards in Stroop Test. Furthermore, there was also a significant difference between the groups according to correction and mistake scores in 5th card. For CT, that measures sustained attention and ability of visual-scanning, control group was conducted with shorter period, finding more targets, and missing less targets ($p<0.05$). The Tower of London task that measures planning and problem solving abilities showed that, experimental group accomplished the task with faster speed, had less correct answers, and less planning period ($p<0.05$). VMPT and SDLT were administered to measure learning and memory functions. The control group had significantly less trial for learning number series in SDTL than the experimental group. Additionally, control group had significantly higher scores on working memory, learning, highest learning, and automatically recall; had significantly lower in consistency scores than the experimental group in O-UMPT. WCST was administered to measure executive functioning and abstract thinking. The experimental group used more cards, accomplished less category, and more perseveration error than the control group.

CONCLUSIONS: It is important to know the differences in neuropsychological functions of individuals with history of SC use for successful interventions about psychoeducation programs, adaptation of treatment, occupational functionality, and educational success.

Keywords: addiction, neuropsychology, synthetic cannabinoid

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[Abstract:0649][Others]

Bullying behavior in relation to depression and health-related quality of life among adolescents: a high school based cross-sectional study

Isa Can Kivrak¹, Yuksel Kivrak², Ibrahim Yagci³

¹Kars Alpaslan Anatolian High School, Kars, Turkey

²Department of Psychiatry, Kafkas University, School of Medicine, Kars, Turkey

³Department of Psychiatry, Kars State Hospital, Kars, Turkey

e-mail address: ykivrak21@gmail.com

OBJECTIVE: Bullying can cause both psychological problems and physical problems such as loss of appetite, increase in physical injuries, waist pain, skin problems, sleep problems, enuresis, depression and anxiety. There are several studies evaluating the relationships between bullying and life quality, depression. As far as we know, there is no study evaluating all these three topics. The aim of this study was to evaluate peer bullying in adolescents, being victim of peer bullying, depression and life quality with regard to health. Our secondary aim was to identify the relationship between these conditions.

METHODS: Our study was conducted in Alpaslan Anatolian High School in Kars, Turkey. All students were included in the study with free will to participation. Exclusion criterias were being unwilling to participate and not answering the questionnaire. The participants were administered a Sociodemographic data form, Depression Scale for Children, the Pediatric Quality of Life Inventory (PedsQL), Peer Victim Determination Scale (PVDS), and Peer Bullying Determination Scale (PBDS).

All the data was analyzed using the SPSS software. For the data that met the parametric conditions, independent two sample t-test was used to compare two groups and Pearson's correlation analysis was used to define the relationship between the measurable data. $p < 0.05$ was accepted as statistically significant.

RESULTS: The rate of being the victim of bullying at least once in life was 91.5% in males and 83.3% in females. The rate of bullying at least once in life was 83.3% in males and 61.9% in females. Both PVDS and PBDS scores were higher in males. There were no statistically significant differences regarding the depression rate and psychosocial scores between male and female participants. There were statistically significant difference regarding total physical health points and (PedsQL) between male and female participants. Maternal education level was higher in the male group. There were negative correlations between (PedsQL) and PVDS, PBDS and CDS. Maternal and paternal education levels were positively correlated.

CONCLUSIONS: The results of our study indicate that both peer bullying and being the victim of bullying are frequent. This study is important as being the first study of its kind in Turkey. The most important findings of our study were the negative correlations between (PedsQL) and bullying scores, victimization scores and depression scores ($p < 0.05$). These findings may help improve the literature by providing data in our region. We suppose that detection of both victimization and bullying and identifying the depression rates in these adolescents will help to improve their life qualities. Since depression is highly correlated with bullying and victimization, cooperation of health and education professionals might help detecting these conditions and thus leading an increase in life qualities of adolescents.

Keywords: adolescent, bullying, depression, high school, quality of life

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[Abstract:0658][Forensic psychiatry]

The demographic and clinical characteristics of sexually abused boys

Halenur Teke, Veli Yildirim, Serkan Gunes, Olzalp Ekinci, Fevziye Toros

Department of Child and Adolescent Psychiatry, Mersin, Turkey

e-mail address: velikaramanli@gmail.com

OBJECTIVE: Girls are subjected to sexual abuse (SA) nearly four times more likely than boys. The abuse of boys is seen less frequently than girls in studies related to child victims of sexual abuse. Therefore, several studies suggested that boys were neglected in the investigations. In this study, we aimed to determine the demographic characteristics of sexually abused boys and comorbid psychiatric disorders in this group.

METHODS: The files of the SA cases who presented to Mersin University Medical School Department of Child and Adolescent Psychiatry in January 2005–December 2015 were studied retrospectively. The files of 110 boys who had been victims of SA were examined. Information

about SA, demographic data and, clinical features of the patients were entered in the SPSS Version 16 for Windows (SPSS Inc., Chicago, IL). Frequencies and descriptive statistical analyses of the data were performed.

RESULTS: The mean age of 110 sexually abused boys was 10.2 ± 3.5 (min: 2, max: 18). 29.1% (n=32) of the patients' parents were divorced. The psychiatric disorders of the patients according to DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition) were as following: Posttraumatic Stress Disorder (PTSD) (38.2%, n=42), Mild Intellectual Disability (MID) (17.3%, n=19), Attention Deficit and Hyperactivity Disorder (ADHD) (9.1%, n=10), Major Depressive Disorder (MDD) (8.2% n=9), Conduct Disorder (CD) (4.5%, n=5), Anxiety Disorder (AD) (3.6%, n=4), Encopresis (1.8%, n=2), Substance Abuse (1%, n=1) and Moderate Intellectual Disability (MoID) (1%, n=1).

CONCLUSIONS: In the literature, there are several studies suggest that most of the children have at least one psychiatric disorder after the SA. PTSD, MDD, and Adjustment Disorder (AdD) are the most common psychiatric disorders. Studies in this filed in Turkey have shown similar results. In our study, we saw that PTSD and MDD were the most frequent diagnosis of sexually abused boys. Hence, we can claim that our study is consistent with the literature. Taner et al. reported that 24% of their cases had a psychiatric diagnosis before the SA. MID, ADHD, and MDD were the most common disorders among these diagnoses. Also in our study, MID, and ADHD were the most common comorbid diagnoses. Children with MID or MoID may experience difficulties in perception and judgment of sexual behaviors, and they may not explain the situation to family members, or someone else. Therefore, it can be said that they are more likely to have SA. In addition, many studies suggested that ADHD may also predispose to SA. Many of childhood psychiatric disorders are more common in boys. In our study, 9.1% of the patients have ADHD, and this result is considered as lower than expected. This condition can be caused by not evaluating the patients in detail about this specific diagnosis. So, especially in sexually abused boys, externalizing disorders should be evaluated carefully. In addition, measures should be taken for children with ADHD and ID to prevent these children from SA.

Keywords: sexual abuse, boys, clinical characteristics

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[Abstract:0672][Impulse control disorders]

Adolescent impulsivity and its relationship with psychopathology in a clinic sample

Sebla Gokce¹, Canan Yusufoglu¹, Ayse Burcu Ayaz², Elif Akin¹, Ibrahim Adak¹

¹Erenkoy Mental Health Research and Training Hospital, Istanbul, Turkey

²Marmara University Pendik Hospital, Istanbul, Turkey

e-mail address: seblagokce@yahoo.com

OBJECTIVE: The impulsive behavior that is defined as lacking cognitive control over behavior, is characteristic of adolescence. Impulsivity is associated with deficits in executive function and often linked to rise in sensation seeking. And it may reflect underlying neurodevelopmental processes and psychopathology. In this study we aimed to assess impulsivity in adolescent psychopathology in a clinic sample.

METHODS: Two hundred and thirty three adolescents who admitted to the Erenkoy Mental Health Research and Training hospital between January, 2015 and March, 2015, were evaluated in this study. Psychiatric diagnosis were made by child and adolescent psychiatrists. Adolescents filled Barret Impulsiveness scale and parents completed SNAP IV ADHD scale.

RESULTS: 50.9% of the participants were female and 49.1% were male. Mean age of girls were 14.7 ± 1.7 (10.8-18.0) and mean age of boys were 14.4 ± 1.7 (11.2-18). 66.7% of the adolescents had Attention Deficit Hyperactivity Disorder diagnosis (45.5% were predominantly inattentive type and 19.7% were predominantly hyperactive type). 19.7% of the sample had major depression, 1.3% had Post Traumatic Stress Disorder, 3.8% had Obsessive Compulsive Disorder, 9% had Anxiety disorder, 12% had Adjustment disorder, 6.8% had Conduct disorder, 3.4% had Oppositional Defiant disorder, and 4.3% had learning disorder. Adolescents who were diagnosed as major depression had increased impulsivity levels according to the Barret impulsivity scale than other diagnosis. Attention Deficit Hyperactivity Symptoms were increased in adolescents with ADHD than other diagnosis according to the SNAP IV ADHD scale.

CONCLUSIONS: Impulsivity is related to several psychopathological states in adolescence. We found an increased impulsivity levels in adolescents with major depressive disorder in our clinical sample. We will discuss comorbid ADHD diagnosis and attention deficit hyperactivity symptom severity levels' relation with impulsivity. Since impulsivity is a multi-dimensional construct, it should be taken into account with its different cognitive, clinical, and behavioral aspects.

Keywords: ADHD, adolescence, depression, impulsivity

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[Abstract:0674][Mood disorders]

Self-stigma in bipolar patients and treatment adherence

Sadiye Visal Buturak¹, Gamze Ozcicek¹, Aslihan Gunes², Hatice Ozdemir Rezaki¹, Orhan Murat Kocak¹, Ayse Gul Yilmaz Ozpolat¹¹Department of Psychiatry, Kirikkale University, School of Medicine, Kirikkale, Turkey²Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, Ankara, Turkey

e-mail address: visalbuturak@hotmail.com

OBJECTIVE: Treatment adherence is an important issue in bipolar disorders. There are many factors that affect the treatment adherence in bipolar disorders. Self-stigma, which affects the quality of life, is a condition that may be seen in many patients with psychiatric disorders and other medical disorders. In this study, we aimed to test the hypothesis that the sense of stigma would affect treatment adherence.

METHODS: Forty-four patients diagnosed as bipolar disorder-I or bipolar disorder-II according to the Diagnostic and Statistical Manual of Mental Disorders-IV with using the Structured Clinical Interview for DSM-IV Axis-I Disorders (SCID-I) were included. Patients who had Hamilton Depression Rating Scale score ≤ 7 and the Young Mania Scale score of ≤ 5 were enrolled to the study. We used Self-Stigma of Seeking Psychological Help Scale and the 4-item Morisky Medication Adherence Scale to evaluate the self-stigma and treatment adherence. The study group was divided into two groups as "treatment adherent" and "treatment non-adherent".

RESULT: The participants consisted of the group of seventeen treatment adherent patients (six woman) and the group of 27 treatment non-adherent patients (13 woman). There were no statistically significant differences between the groups according to the gender distributions ($\chi^2=0.703$, $df=1$, $p=0.402$). The mean ages of the treatment adherent and treatment non-adherent groups were 42.47 ± 12 and 37.96 ± 14.57 , respectively. The mean age was not significantly different between the two groups ($p=0.29$). The Self-Stigma of Seeking Help Scale scores were significantly different between the two groups of ($p=0.048$). Furthermore, there was no difference between the groups according to the age at onset ($p=0.42$), education level ($\chi^2=0.829$, $df=1$, $p=0.36$), being hospitalized ($\chi^2=0.48$, $df=1$, $p=0.49$), and suicide attempt ($\chi^2=0.397$, $df=1$, $p=0.71$).

CONCLUSIONS: Studies have shown treatment non-adherence rates among bipolar disorder to be 20–66%, while our recent study found the non-adherence rate to be 67.5%. The current study revealed a non-adherence rate of 62.5%. Treatment non-adherence has been shown to be related to poor outcome in patients with bipolar disorder. Stigmatization is a social and psychological condition that has been proposed to decrease life satisfaction. Studies have shown high levels of internalized stigma among patients with bipolar disorder, which seems to be related to poor functioning. The current study revealed that internalized stigma has a negative effect on treatment adherence in bipolar disorder. The assessment and if necessary a psychological intervention of internalized stigma in patients with bipolar disorder may lead to improved functioning.

Keywords: self-stigma, bipolar disorder, treatment adherence

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[Abstract:0677][Sleep disorders]

Night terror: predisposing factors and comorbidity

Pelin Dag, Veli Yildirim, Ozalp Ekinci

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

e-mail address: drpelindag@yahoo.com

OBJECTIVE: Sleepwalking, night terrors, sleep talking, and sleep paralysis are some of the behavioural manifestations associated with the partial arousals from sleep known as parasomnias — a group of sleep disorders defined as undesirable physical events or experiences that occur during the initiation of sleep, during sleep or during arousal from sleep. Night terrors are characterized by a sudden arousal, accompanied by screaming and thrashing uncontrollably in bed. Night terrors tend to occur in the first half of the night. Although the clinical features and pathophysiology of night terrors are clearly defined, predisposing factors are largely unknown. The present retrospective chart review aimed to examine the early developmental factors and comorbid psychiatric disorders and organic diseases of children diagnosed with night terror.

METHODS: Children and adolescents (aged between 2 and 18 years) with a documented night terror diagnosis according to DSM-IV were included from a tertiary referral center. The study period was between 2002 and 2015. Child and adolescent psychiatry patient files and

hospital medical records were reviewed for all 64 children. Only the patients with full medical records and who have not total loss of sight and/or deafness were included and those with developmental abnormalities and ranged at orphanage were excluded. Sixty four patients met the inclusion criteria. Sociodemographic characteristics, delivery method, period of getting care in an incubator, breastfeeding time, age of language development, age of toilet training, primary caregiver at first two ages, comorbid psychiatric disorders, and organic diseases were entered into the study dataset.

RESULTS: Sociodemographic characteristics of participants were presented in Table 1. Birth by cesarean section rate was found to be higher in the children who were diagnosed as night terror at preschool period when compared with those diagnosed at school age ($p=0.001$). Breastfeeding time was shorter for boys ($p=0.023$). 67.7% of boy participants' and 32.3% of girl participants' breastfeeding time is found as shorter than twelve months. There was no comorbid psychiatric disease in 48.4% of the participants. Most frequently comorbid psychiatric diagnoses were as follows: ADHD (21.9%), anxiety disorders (12.5%), enuresis nocturna (4.7%), and stammering (4.7%). There was no comorbid organic disease in 67.2% of participants. The most frequently comorbid organic diseases were asthma (6.2%), allergic diseases such as allergic dermatitis or allergic rhinitis (6.2%), epilepsy (4.7%) and adenoidectomy (4.7%), inguinal hernia (3.1%), and cardiovascular system anomalies (3.1%).

CONCLUSIONS: This chart review aimed to examine the early predisposing factors and comorbid organic diseases and psychiatric disorders of night terrors. Our results should be interpreted cautiously in light of study limitations mainly the small sample size and retrospective design. Our significant findings on birth factors need to be confirmed with randomized controlled studies. In addition the relationship between breastfeeding time and gender need to be examined by randomized controlled trials.

Keywords: night terror, sleep disorder, parasomnia

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[Abstract:0696][Psychosomatic medicine-Liaison psychiatry]

The effect of temperament and character traits on perceived social support and quality of life in patients with epilepsy

Kadir Demirci¹, Seden Demirci², Esra Taskiran², Suleyman Kutluhan²

¹Department of Psychiatry, Suleyman Demirel University, School of Medicine, Isparta, Turkey

²Department of Neurology, Suleyman Demirel University, School of Medicine, Isparta, Turkey

e-mail address: kdrdmrc@yahoo.com

OBJECTIVE: Epilepsy is a prevalent chronic disorder and a cause of important morbidity and mortality. Anxiety and depression are the most common psychiatric diseases in epilepsy affecting about 55% of subjects. It has also been suggested that personality changes may also occur in patients with epilepsy (PWE). Temperament and Character Inventory (TCI) developed by Cloninger et al. is a well-established approach for evaluate the personality traits of the patients with chronic disorders. Higher social support may increase the quality of life and decrease severity of psychiatric symptoms in PWE. The aim of this study was to examine the effect of temperament and character traits on perceived social support and quality of life in PWE.

METHODS: Fifty-four patients with epilepsy who presented to neurology outpatient clinic and 52 healthy subjects were included in this study. The diagnosis of epilepsy was performed according to the International League Against Epilepsy criteria. Participants between 18 and 55 years of age with at least elementary school education and patients with a diagnosis of epilepsy for at least 1 year were included. Patients with known chronic systemic diseases or neurological diseases other than epilepsy, cognitive disorder such as mental retardation and dementia, a history of epilepsy surgery, psychiatric disorders such as psychotic disorder, obsessive-compulsive disorder, alcohol and/or drug addiction were excluded. Neurologic examination was performed and data of epilepsy information form was recorded. Then, psychiatric interview was performed by the psychiatrist using SCID-I and participants were administered Turkish version of the TCI, Hospital Anxiety Depression Scale (HADS), Multidimensional Scale of Perceived Social Support Scale (MSPSS), and 36-Item Short-Form Health Survey (SF-36). The study was approved by the local Ethics Committee.

RESULTS: There were no significant differences between PWE and controls in terms of age, gender, education, marital status, and occupation ($p>0.05$). Mean duration of epilepsy was 9.71 ± 9.28 years. Depression, anxiety and total scores of HADS in epilepsy group were significantly higher compared with the controls ($p=0.005$, $p=0.012$, $p=0.001$, respectively). MSPSS total scores and subscale scores showed no significant differences between the groups ($p>0.05$). When the groups were compared for their TCI scores; Harm Avoidance (HA) scores was significantly higher, while Reward Dependence (RD) scores were significantly lower in the epilepsy group ($p=0.042$, $p=0.022$, respectively). Mental and physical subscale of SF-36 were significantly lower in PWE than controls ($p=0.006$, $p=0.030$, respectively).

Multivariate linear regression analysis indicated that persistence scale of the TCI was independently associated with physical subscale of SF-36, RD was independently associated with total and special persons component scores of MSPSS, and RD and cooperativeness were independently associated with scores of friends component of MSPSS even after adjustment for confounding background variables ($p < 0.05$, for all).

CONCLUSIONS: This study suggests that PWE have distinctive temperament such as HA and RD dimensions compared with healthy controls and temperament and character traits may affect quality of life and perceived social support in PWE. Therefore, evaluating of temperament and character traits may play an important role in preventing the negative results on quality of life and perceived social support in PWE.

Keywords: epilepsy, perceived social support, temperament and character, quality of life

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[Abstract:0721][Psychosomatic medicine-Liaison psychiatry]

Evaluation of impulsivity, alexithymia, self perception, and coping styles with stress in female patients with fibromyalgia syndrome

Seyma Selen Sevinc¹, Secil Ozen²

¹Department of Psychiatry, Ankara Numune Training and Research Hospital, Ankara, Turkey

²Department of Psychiatry, Turgut Ozal University Hospital, Ankara, Turkey

e-mail address: drselen@gmail.com

OBJECTIVE: Fibromyalgia Syndrome (FMS) is a common pain, characterized by physical and mental symptoms, etiology cannot be clarified, the exact pathogenesis of disease is defined as unexplained muscle-skeletal system. However, it was not proportional to the tissue damage often associated with the pain behavior, because of complaints are like anxiety, depression, and somatic complaints related to dealing with such person's mental state psychosomatic diseases and psychiatric physicians are often consulted. The findings observed in FMS such as fatigue and cognitive dysfunction syndrome in the absence of the old criteria were included in the new diagnostic criteria of mental symptoms and symptom severity scale in 2010; fibromyalgia has been highlighted to be associated with mental components of quality of life such as depression, anxiety, and alexithymia, once again. Besides pain FMS patients often complain with inattention, irritability, concentration, and working memory problems that associated with neuropsychological deficits. In this study, firstly in FMS patient's we aimed to examine relationship between disease severity and ways of coping with stress, impulsivity, self-perception, alexithymia, and general psychopathology. Also we aimed to examine the relationship between alexithymia impulsivity in FMS.

METHODS: The study included 55 people diagnosed with FMS by FTR physician and a control group consisting of 43 people, including a total of 98 participants were women. FMS to all the volunteers participating in the study and control groups were performed by the clinician at the first meeting SCID-I. Sociodemographic data form to be filled by the participants themselves, Ways of Coping Inventory (WCI), Social Comparison Scale (SCS), Barrat impulsivity Scale (BIS-11), Toronto Alexithymia Scale (TAS-20), Beck depression Inventory, and the Beck Anxiety Inventory (BAI) was given.

RESULTS: FMS patient had significantly higher passive coping style, the total alexithymia, total impulsivity, depression, and anxiety scores compared to the control group. Self-perception scores were found significantly lower than control group. The result of the correlation analyses; a negative correlation between impulsivity and confident to cope, a positive correlation between impulsivity and the helpless coping and alexithymia were found. Regression analysis revealed that alexithymia score good also predicts impulsivity by the.

CONCLUSIONS: People with psychosomatic diseases such as FMS may from time to time refer their feelings, which they can not express and recognize enough but can in an impulsive manner. Once again we underlined as in the literature; the rate of psychiatric comorbidity should be considered while planning the treatment and following-up the FMS patients. Furthermore taking into considerations the fact that increasing of alexithymia in FMS patients predicts the impulsive features which may impact on their way of coping with disease itself, their pharmacologic and non-pharmacologic treatment can be reviewed with an attention to their impulsivities in addition to depression and anxiety. Etiology of psychosomatic disorders do not have any definitive conclusions so that further studies are required in order to explain the relationship between alexithymia and impulsivity in psychosomatic disorders.

Keywords: alexithymia, coping styles with stress, fibromyalgia, impulsivity, self-perception

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[Abstract:0725][Forensic psychiatry]**Attachment in the adolescent behavior of suicide**

Berna Polat, Veli Yildirim

Department of Child and Adolescent Mental Health and Diseases, Mersin University, Mersin, Turkey
 e-mail address: bernatalop@gmail.com

OBJECTIVE: Suicidal behavior among adolescents is an important public and mental health problems. Adolescents' suicide attempts cause serious a crisis and affect the communication between the parents and the adolescents. Psychiatric disorders which parents and adolescents have and insecure attachments accepted as a risk factor for suicidal behaviors. The attachment, which affects the relationship between parents and adolescents, those psychiatric disorders and depressive symptoms, were studied on adolescents who has suicidal ideations and attempts.

METHODS: One hundred fifty six adolescents were examined. There were adolescents with suicide idea (n=40) and suicide attempts (n=72) and healthy control group (n=44). Socio-demographic data, adolescent and parent psychiatric disorder situation and attaching to the parent were compared between these groups. Adolescents completed self-report measures of parent attachment, and depressive symptoms. In order to compare these study groups ANOVA-a parametric test-, Bonferroni-one of the post-hoc tests-, bivariate and chi-square tests were performed.

RESULTS: The age average between these groups were 14.92 ± 1.71 . In the suicidal idea and attempt groups, female adolescents numbers were higher than male adolescents. Parents' education status were low on these groups. The psychiatric disorders which mothers had 34.7% in suicidal attempt group, 45.0% in suicide idea group and 11.4% in control group. In addition, the fathers' psychiatric disorders were 16.7% in suicidal attempt group, 12.5% in suicide idea group and 6.8% in control group. It was observed on 86.1% of adolescents who had suicidal attempts and 97.5% of adolescents who had suicide ideas, that they had at least one psychiatric disorder. Depression is the most common with these adolescents. The parents and the adolescents who had suicidal attempts and suicide idea were more depressive than the healthy control group.

CONCLUSIONS: The adolescents who had suicidal behavior, insecure attachment is considered as a possible risk factor in terms of adolescent psychiatric health. Both quality attachment and following psychiatric disorders' treatment may reduce the risk of suicidal behaviors. We suggest that longitudinal studies should be conducted with larger sample size.

Keywords: adolescent, attachment, parent, suicidal behaviour, depression

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[Abstract:0730][Mood disorders]**Sexual dysfunction in women with bipolar disorder and their partners**Ali Metehan Caliskan¹, Duygu Goktas¹, Mehmet Arslan², Saliha Calisir¹, Ikbal Inanli¹, Ibrahim Eren¹

¹Department of Psychiatry, Konya Training and Research Hospital, Konya, Turkey

²Babaeski State Hospital, Kirklareli, Turkey

e-mail address: drmete@hotmail.com

OBJECTIVE: Bipolar disorder (BD) is a complex, chronic psychiatric condition characterized by recurring episodes of depressive illness and mania or hypomania. Sexual dysfunction is common in BD. The reasons for sexual dysfunction are complex and may arise from the side effects of psychotropic medications, poor physical health, and the effects of the illness itself. Bipolar disorder is associated with a reduction in sexual desire in depressive episodes, but with hypersexual and promiscuous behaviour in individuals in manic episodes. The aim of this study was to assess the changes in sexual activities, sexual function, and sexual dysfunction in women with BD and their partners.

METHODS: The study was a cross-sectional design conducted at the Konya Training and Research Hospital. The sample included clinically stable (Hamilton Depression Rating Scale score of ≤ 7 and Young Mania Rating Scale score of ≤ 5 , and no change in medications at least in the last 2 months) female patients with bipolar disorder (n=60), their partners (n=60) and healthy controls (n=45) who fulfilled the inclusion criteria. To be eligible for the study, couples had to be married for minimum of a year. All participants were administered sociodemographic data form, Hamilton Depression Rating Scale (HDRS), Hamilton Anxiety Rating Scale (HARS), Marital Adjustment Scale (MAS), Golombok Rust Inventory of Sexual Satisfaction (GRISS), Pittsburgh Sleep Quality Index (PSQI), and Short-Form Health Survey (SF-36). Individuals in the patient group were also administered the Young Mania Rating Scale (YMRS) and Medication Adherence Rating Scale (MARS).

RESULTS: Bipolar patients showed statistically significant higher scores on GRISS, anorgasmia, dissatisfaction, non-communication subscales and total score, HDRS, and HADS scores and statistically significant lower scores on MAS, SF-36 general health, vitality, social function, mental health, and emotional role limitations scores were significantly lower, compared with healthy controls. Patients' MAS scores were found negatively correlated with their GRISS total, avoidance, non-sensuality, anorgasmia, and dissatisfaction scores. Patients' HDRS and HADS scores were found positively correlated with their GRISS total and all subscales. Also patients' age and duration of their last marriage were found positively correlated with their GRISS total, anorgasmia, infrequency, and non-sensuality scores. Total duration of the patients' disease were found positively correlated with their GRISS total, non-sensuality, anorgasmia scores. Higher scores of HDRS and HARS, lower scores of MAS and older age were found as risk factors in prediction model of presence of sexual problems by GRISS in patients performed with logistic regression analysis. Patients' partners showed statistically significant higher scores on GRISS total, non-sensuality, avoidance, dissatisfaction, infrequency and non-communication scores and statistically significant lower scores on MAS and SF-36 mental health, social functioning, vitality, general health, and physical functioning, compared to the healthy controls.

CONCLUSIONS: Sexual dysfunctions were determined more frequently in patients and their partners than controls. Older age, higher depressive and anxiety symptoms, and lower marital adjustment in patients were seemed to increase the risk of sexual problems in patients. Clinicians should examine sexual problems in patients with BD; follow up and treat subsyndromal depressive and anxiety symptoms carefully.

Keywords: bipolar disorder, sexual dysfunction, marital adjustment

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[Abstract:0731][Anxiety disorders]

Diagnostic performance of malondialdehyde, superoxide dismutase, and catalase in generalized anxiety disorder patients

[Mehmet Akif Camkurt](#)¹, [Ebru Findikli](#)², [Filiz Izci](#)³, [Huseyin Avni Findikli](#)⁴, [Perihan Sumer](#)², [Ergul Belge Kurutas](#)²

¹Afsin State Hospital, Kahramanmaraş, Turkey

²Department of Psychiatry, Kahramanmaraş University, Kahramanmaraş, Turkey

³Department of Psychiatry, Istanbul Bilim University, Istanbul, Turkey

⁴Department of Psychiatry, Adiyaman University, Adiyaman, Turkey

e-mail address: dr.akif@gmail.com

OBJECTIVE: Generalized anxiety disorder (GAD) is a common anxiety disorder with a prevalence of 5%. Women tend to have GAD two times more than men. In spite of growing research focusing on neurobiological, social, and psychological basis of GAD, its etiology is still unclear. Until now, there has been a considerable literature on biomarker research in psychiatry practice. Genetic, electrophysiological, inflammatory, and oxidative-antioxidant markers have been examined to detect biomarkers. Despite oxidative stress and antioxidant enzyme levels are easy to study in peripheral tissues, very little is known about their diagnostic value. Here, in this study we aimed to examine malondialdehyde (MDA) in terms of oxidative stress and superoxide dismutase (SOD) and catalase (CAT) regarding to antioxidant enzymes. To the best of our knowledge, this is the first study investigating SOD and CAT levels and evaluating diagnostic value of MDA, SOD, and CAT levels in GAD patients.

METHODS: Peripheral venous blood samples were collected from 46 patients and 45 healthy controls. MDA examined with Ohkawa's method, CAT was measured with Beutler's method, and SOD was evaluated with Fridovich method.

RESULTS: MDA was significantly increased in patients than the controls ($p < 0.05$), SOD and CAT activity was significantly decreased in patients than controls ($p < 0.05$ for both). We found significant correlations between SOD and CAT activity and Hamilton Anxiety Scale (Ham-A) scores ($p < 0.001$ for both). ROC curve analysis showed high diagnostic performance for MDA and SOD, low diagnostic performance for CAT, areas under curve were 1.0, 1.0 and 0.648, respectively.

CONCLUSIONS: Previously, paraoxonase have been reported to be a good diagnostic marker for generalized anxiety disorder. Furthermore, diagnostic value of MDA and SOD have been examined in major depressive disorder. Our results reveal that MDA levels could be a good diagnostic parameter for drug naïve GAD patients. Future studies should examine diagnostic value of oxidants and antioxidant enzymes in larger samples and focus on diagnostic value of these parameters.

Keywords: generalized anxiety disorder, malondialdehyde, superoxide dismutase, catalase, diagnostic

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[Abstract:0735][Others]

Suicide attempts presented to the Mersin University Child and Adolescent Psychiatry Department within last ten years

Veli Yıldırım¹, Meryem Ozlem Kutuk², Ozalp Ekinci¹, Fevziye Toros¹¹Department of Child and Adolescent Psychiatry, Mersin University, Mersin, Turkey²Department of Child and Adolescent Psychiatry, Baskent University, Adana, Turkey

e-mail address: velikaramanli@gmail.com

OBJECTIVE: Suicide is one of the leading causes of death in the world and is an important public and mental health concern. Turkish Statistical Institute reported that the number of deaths due to suicide was 2,677 in 2011, and youth between the ages of 15–19 accounted for majority of these deaths. According to USA data, each year, thousands of young people attempt suicide. Suicide is the third most frequent cause of deaths between the ages of 15–24, while it is the 6th most common cause of deaths between the ages of 5–24.

METHODS: All cases presented to the Mersin University between 2005–2015 were evaluated by a child psychiatrist. The diagnoses of all cases according to DSM-IV and their age and gender were recorded to SPSS Version 11 for Windows. Those whose first referral cause was suicide attempt and those with other causes were recorded. Out of cases with more than one suicide attempt, those whose complaint was suicide in the first presentation were included in the study. Those who first presented with another cause and attempted suicide during follow-up period were not included in the study.

RESULTS: It was determined in a large sample that suicide attempt accounted for about 2.3% (303/13187) of referrals to child psychiatry. Out of 303 cases who attempted suicide, mean age was 14.7±2.7. 239 (78.8%) cases were girls while 64 (21.2%) cases were boys.

CONCLUSIONS: According to the World Health Organisation (WHO), suicide is one of the most important 10 causes of death in many countries and its mortality rate was found to be 16 per hundred thousand. In addition, it has been reported that previous history of suicide attempts is the most important risk factor and increase the risk of future attempts by 4–10 fold. In the present study, it has been determined in a large sample that about 2.3% of referrals to child psychiatry are associated with suicide attempts. Rhodes et al. examined health insurance records of subjects between the ages of 12–17 who presented to emergency department with suicide attempts and established that in 2002, their rate was 477 per 100,000 then in 2005, 395 per 100,000, while in 2010, this figure decreased to 299. It was stated that decrease in the figures may be associated with economic factors and the use of antidepressants. Also we think that the rise in the number of child psychiatrists and the increase in use of psychotropic drugs among children who attempt suicide may have caused our number of attempts to decrease in Mersin University sample. As in most of the university hospitals in Turkey, there is no inpatient clinic in Mersin University, Department of Child and Adolescent Psychiatry. Cases who attempt suicide are usually referred to facilities with inpatient clinics. Within the last five years, the availability of child and adolescent psychiatrist in facilities with inpatient clinic led patient to present to mostly to the Mental State Hospital. In conclusion, inpatient clinical services should be established in order to prevent suicide attempts in children and adolescents and rehabilitation, training, and research efforts should be intensified in university hospitals.

Keywords: attempted suicide, adolescent, child, time factors

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[Abstract:0758][Non-biological treatments]

Decreased panic and anxiety scores with canalith repositioning maneuvers in benign paroxysmal positional vertigo patients

Serif Samil Kahraman¹, Umit Sertan Copoglu², M. Hanifi Kokacya², Cengiz Arli¹, Sait Colak¹¹Department of Otolaryngology, Mustafa Kemal University, Hatay, Turkey²Department of Psychiatry, Mustafa Kemal University, Hatay, Turkey

e-mail address: drhanifi@yahoo.com

OBJECTIVE: Vertigo, dizziness, and imbalance are the main symptoms of vestibular disorders. Benign paroxysmal positional vertigo (BPPV) is the most common peripheral vestibular disorder. BPPV is characterized by sudden, brief episodes of intense vertigo associated with a change in head position, often while turning in bed. Recent studies have shown that nearly 50% of people complaining of dizziness

also report some psychological problems, with more than 25% of dizzy patients presenting symptoms of panic and agoraphobia. In this study, we aimed to evaluate the psychologically patients with BPPV during attack and remission periods.

METHODS: The study comprised a total of 30 patients aged >18 years who presented at the Otolaryngology Outpatient Clinic of our hospital, newly diagnosed as BPPV based on the history compatible with BPPV and positive provocative maneuver (either Dix-Hallpike or Roll test). The patients were treated with the canalith-repositioning maneuver(CRP). Modified Epley's method was used for posterior canal involvement and Barbeque roll test was used for horizontal canal involvement. Patients returned for reevaluation 7 and 14 days after the maneuver. If the provocative maneuver was positive on follow-up evaluation, the CRP was repeated. No premedication was routinely administered. For long-term follow-up, patients were contacted by phone within 6 months. They were also advised to contact us immediately if vertigo reoccurred in the intervals of routine communication. The patients were instructed to fill out the standard forms of Beck Anxiety Inventory and Panic Agoraphobia Scale before and 7, 14 days after the canalith repositioning treatment (Epley or Barbeque Roll maneuver). Visual Analog Scale were administered to evaluation of severity imbalance and vertigo in all periods. The results were compared statistically.

RESULTS: Beck Anxiety Inventory and Panic Agoraphobia Scale scores were significantly decreased in the second and third interview compared to the first ($p<0.001$, $p<0.001$, respectively). In the first interview 21 patients, second interview 10 patients and the third interview 6 patients were found to be above the threshold when panic and agoraphobia scale cut-off score was taken as 12. The rate of supra-threshold patients were significantly lower in the second and third interviews than the first ($p=0.001$, $p<0.001$, respectively).

CONCLUSIONS: We concluded that statistically significant improvements were observed in Beck Anxiety Inventory and Panic Agoraphobia Scale scores after canalith reposition maneuver. BPPV was experienced in the short but intense anxiety and/or panic disorder, but most of patients recovered without medical treatment with successful treatment. The presence of the close contact and sense of trust between them may help patients with BPPV to return to daily life more rapidly and comfortably after CRP.

Keywords: Panic, anxiety, benign paroxysmal positional vertigo

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[Abstract:0778][Psychopharmacology]

A retrospective chart review of aripiprazole use in preschool children

[Sevcan Karakoc Demirkaya](#)

Department of Child Psychiatry, Adnan Menderes University, School of Medicine, Manisa, Turkey
e-mail address: drsevcankarakoc@yahoo.com

OBJECTIVES: Aripiprazole has a FDA approval for children with irritability with autism above 6 years old, however the data for children below 6 years old is limited. Antipsychotics are mostly preferred for controlling aggression in preschool ages when psychosocial interventions are unsuccessful. Here, we aimed to examine effectiveness and tolerability of aripiprazole in preschool children with heterogenous psychopathologies.

METHODS: The medical records of children ($n=23$) under 72 months old (age ranges 42–70 months) with severe psychopathologies treated with oral dose of aripiprazole were evaluated. Baseline and end-point symptom severity was assessed and compared using the Clinical Global Impressions (CGI) scale. The Wilcoxon non-parametric t test was used for comparasion.

RESULTS: Diagnostic classifications were; irritability in autism and related disorders ($n=11$), attention deficit hyperactivity disorder ($n=6$), behavioral problems in mental retardation ($n=4$), and tic disorder ($n=1$),and trichotillomania ($n=1$). CGI baseline scores were 5–7 (mean 6.4 ± 0.7) and end-point scores were 2–7 (mean 4.1 ± 1.1), the difference was significant ($p<0.05$). The range of aripiprazole dose was 1–6 mg/day. Overall the most frequently reported side effects were irritability, nausea, somnolence, and akathisia. An unusual side effect was reported as encopresis.

CONCLUSIONS: Aripiprazole may be an effective in the treatment of aggression, irritability, and hyperactivity symptoms and for tics in preschool children. Weight gain is less expected in aripiprazole than in risperidone which may be a choice for clinicians. However, tolerability and side effects of aripiprazole remain an important issue. Further larger sample size controlled studies are needed.

Keywords: preschool children, aripiprazole, autism, encopresis

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[Abstract:0787][Psychopharmacology]**School based combined exercise and computer training program may improve working memory in ADHD children**

Ahmet Buber¹, Musa Yilanli², Omer Basay¹, Zekeriya Celik³, Omer Faruk Tuncer¹, Serdar Avunduk¹, Tunel Topbasoglu⁴, Eylem Celik³, Hasan Herken⁵

¹Department of Child and Adolescent Psychiatry, Pamukkale University, School of Medicine, Denizli, Turkey

²Department of Psychiatry, Wayne State University, Michigan-USA

³School of Sport Sciences and Technology, Pamukkale University, Denizli, Turkey

⁴Counseling and Research Center, Denizli, Turkey

⁵Department of Psychiatry, Pamukkale University, School of Medicine, Denizli, Turkey

e-mail address: ahmetbuber@gmail.com

OBJECTIVE: Attention deficit and hyperactivity disorder (ADHD) is one of the most common psychiatric disorders of childhood. Deficits in executive functioning such as paying attention, response inhibition, and working memory are significantly important in ADHD. Stimulant medications are best treatment modality so far even some children come across the serious side effects. Beside of stimulant medication treatment, combination with other treatments, are recommended for ADHD population. Higher ADHD rates needs supportive non-pharmacological community-based interventions for children with ADHD. One of the approaches for supportive therapies are neuroplasticity-based cognitive training programs. Recently, studies have shown that training of the executive functions especially working memory has positive effects for children with ADHD. According the clinical point of view it may be assumed that enhanced executive function especially working memory can cause of positive effects on functioning in daily life and quality of life. In our study, we combined computer-presented and physical exercises program for targeting the core deficits of ADHD population. We aimed to examine the influence of the training program of a computerized training program and physical exercises on cognitive performance, ADHD symptoms, and functional impairments.

METHODS: In the this study, 23 ADHD-diagnosed children and 18 control subjects were evaluated. The study participants were assessed at the Pamukkale University Life Long ADHD Research Center. The ADHD and control group subjects were recruited in children satisfying the following criteria: aged between 7 and 12 years, attending a public school, no history of head injury with unconsciousness, no history of neurological or other serious medical diseases or the constant use of prescribed medications for medical conditions, and no use of stimulants or use of psychotropic medications. For the ADHD subjects, any psychiatric disorder was an exclusion criterion; for the control subjects, presence of any psychiatric disorders was not allowed. Ethical approval was granted and approved by the Pamukkale University Research Ethics Committee in accordance with the Helsinki Declaration. Written informed consents were obtained from parents of the children both for the ADHD group and TD group. Initially, a semi-structured interview (Kiddie-Schedule for Affective Disorders and Schizophrenia, present and life time version – K-SADS-PL) was administered to parents and children by a child psychiatrist. The same psychiatrist also performed a mental status examination of each child. The group played computer training at school 20 minutes per day, 4 days per week for 10 weeks. Physical exercise was applied at the same day just before the computer program for 40 minutes. Good behavioral game were played during all program to manage of children behaviors that motivate with rewards the children for displaying appropriate behaviors during program.

RESULTS: Initially, a total of 23 ADHD-diagnosed children and 18 control subjects were evaluated with clinical assessments. (Because of the some drop outs and missing pre/post scales or cognitive assessments, final numbers might be different.)

CONCLUSIONS: The influence of the school based combined exercise and computerized training program on cognitive performance, ADHD symptoms, and functional impairment were evaluated. Our findings suggest that school based combined exercise and brain training program has improved the cognitive functions, especially working memory, in children with ADHD. This finding is supported clinically by the improvement in functionality. However a generalized decrease in ADHD symptoms was not found. Future studies with larger samples to distinguish the responders and non-responders as well as to assess long-term effects are needed.

Keywords: ADHD, exercise, working memory

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