

## 9th International Congress on Psychopharmacology & 5th International Symposium on Child and Adolescent Psychopharmacology

Abdurrahim Bakirhan, Safak Yalcin Sahiner, Volkan Sahiner, Şahabettin Çetin, Melike Ceyhan Balcı Şengül, Sema Kuş, Fatih Canan, Ali Erdoğan, Mehmet Murat Kuloglu, Şengül Şahin, Gülçin Elboğa, Ahmet Ziya Şahin, Ahmet Ünal, Abdurrahman Altındağ, Osman Hasan Tahsin Kılıç, Turkan Dogan, Gonul Kaygisiz, Zeynep Ezgi Bal, Mustafa Solmaz, Derya Adali Aker, Ercan Akin, Samet Kose, Deniz Deniz Özturan, Hatice Özyıldız Güz, Muhammet Emin Naldan, Ali Karayağmurlu, Mehmet Nuri Cevizci, Duygu Kara, Elif Oral Ahiskalıoğlu, Pelin Aydın, Yıldız Marangoz, Burcu Akin Sarı, Zeren Barış, Figen Özçay, Başak Tüzün Mutluer, Tuna Güzide Yener Orum, Ebru Şahan, Sencan Sertcelik, Helin Yılmaz, N. Burcu Özbaran, Melis Palamar, Elif Demirkılıç Biler, Ertan Yılmaz, Lut Tamam, Murat Altın, Ipek Fatma Ozaktac, Ayse Sena Sarıdogan, Figen Yavral, Ceyda Tahincioğlu, Hakan Karaş, Hüseyin Ebadi, Suna Sogucak, Servet Karaca, Fatih Canan, Murat Kuloglu, Fatih Canan, Servet Karaca, Murat Kuloglu, Servet Karaca, Suna Sogucak, Fatih Canan, Murat Kuloglu, Servet Karaca, Fatih Canan, Murat Kuloglu, Taner Öznur, Abdullah Bolu, Havva Öznur, Serdar Atik, Cemil Çelik, Özcan Uzun, Abdurrahim Bakirhan, Volkan Sahiner, Erol Göka, Tijen Utkan, Tuğçe Demirtaş Şahin, Yusufhan Yazir, Zehra Seda Halbutoğulları, Semil Selcen Gocmez, Feyza Arıcıoğlu, Övgü Sinem Buğan Gülbahar, Abda Mahmood, Enikő Zsoldos, Charlotte L. Allan, Anya Topiwala, Klaus P. Ebmeier, Jung Suk Lee, Jong Hun Kim, Seon-Koo Lee, Gökhan Ünal, Alim Hüseyin Dokumacı, Mükerrerem Betül Aycan Yerer, Ceren Özkartal, Feyza Arıcıoğlu, Hülya Kamarlı Altun, İlkey Keser, Mehmet Mart, Didem Tezcan, Selim Tümkaya, Figen Çulha Ateşci, Cansu Baygın, Çağdaş Öykü Memiş, Bilge Doğan, Levent Sevinçok, Gonca Karakuş, Lut Tamam, Ceren Şahin Özkartal, Feyza Arıcıoğlu, Erdem Tüzün, Rümeysa Keleş, Cansu Kandemir, Serap Şirvancı, Cem İsmail Küçükali, Özgür Devrim Can, Umut İrfan Üçel, Ümide Demir Özkay, Emel Ulupınar, Nazlı Turan, Özgür Devrim Can, Nafiz Öncü Can, Özgür Devrim Can, Feyza Arıcıoğlu, Tuğçe Baştaşkın, Ceren Şahin Özkartal, Erdem Tüzün, Cem İsmail Küçükali, Tijen Utkan, Feyza Arıcıoğlu, Canan Yalçinkaya, Cansu Kandemir, Serap Şirvancı, Ceren Şahin Özkartal, Tijen Utkan, Feyza Arıcıoğlu, Gülnaz Arkan, Ceren Şahin Özkartal, Tijen Utkan, Nafiz Öncü Can, Yusuf Özkay, Serkan Levent, Nazlı Turan, Feyza Alyu, Yusuf Öztürk, Bassem Sadek, Nadia Khan, Dorota Łażewska, Katarzyna Kieć Kononowicz, Mehmet Hamid Boztaş, Derya Arslan, Ayşegül Koç, Derya Öktem Aygün, Hülya Ensari, Ercan Akin, Samet Kose, Vedat Ceylan, Mehmet Hakan Turkcapar, Vedat Ceylan, Samet Kose, Ercan Akin,

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POSTER PRESENTATIONS



## 9th International Congress on Psychopharmacology & 5th International Symposium on Child and Adolescent Psychopharmacology

Abstract:0058

### The Effect of Demographic Characteristics on Symptom Scores in Untreated Schizophrenic Patients

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#### ABSTRACT

**Objectives:** Schizophrenia is a disorder with different clinical features. Schizophrenia may start insidiously and slow and go on for many years. But the negative symptoms and deficiency symptoms leading to social deterioration may come to the forefront. All these factors are taken into consideration, our aim in this study was to examine the demographic and clinical effects of symptoms on schizophrenic patients who have not yet been treated.

**Methods:** Eighty patients who were admitted to the Ankara Numune Training and Research Hospital Psychiatry Outpatient Clinic, who did not have any previous antipsychotic medications and who did not use medications at the time of admission and who met the criteria for schizophrenia according to the DSM-5. Sociodemographic Data Form and the PANSS scale were used to assess the clinical status of the patients.

**Results:** When the demographic characteristics of the participants were examined, 33 (41.2%) were female and 47 (58.8%) were male. The mean age of the patients was  $31.08 \pm 9.37$ ; mean education year was  $8.76 \pm 3.53$ . When the patients participating in the study were evaluated in terms of gender, marital status, working status, smoking status, and family history, no statistical differences were found between the groups in terms of their PANSS scores ( $p > 0.05$ ). However, the PANSS Negative subscale scores ( $p < .001$ ), general psychopathology scores ( $p = 0.006$ ), and total PANSS scores ( $p = 0.003$ ) were statistically significantly different between the three groups when the patients were untreated for 0–1 years, 1–5 years, and 5 years.

**Conclusions:** In this study none of the sociodemographic factors we assessed had any effect on symptom severity. However, there are different results in the literature regarding gender, age, marital status and working status. Besides, it has been determined that the most important clinical manifestation in our study is the period without treatment. Further studies should identify demographic and clinical features that affect schizophrenic symptom changes.

#### KEYWORDS

Schizophrenia; demographic features; untreated; PANSS

Abstract:0209

### Sociodemographic and Clinical Characteristics of Patients Followed in Psychotic Disorder Outpatient Clinic of a University Hospital

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#### ABSTRACT

**Objective:** In this study, we aimed to examine the sociodemographic data, distribution of diagnoses, and treatments of the patients who are being followed up in the Psychotic Disorders Clinic in our hospital.

**Methods:** Records of patients who were admitted to the Psychotic Disorders Clinic of Pamukkale University School of Medicine's Psychiatric Hospital between July and December 2016 were retrospectively reviewed.

**Results:** During the specified period, 236 patients with different psychotic disorders were admitted. The mean age of cases was determined as  $41.25 (\pm 12.97)$ . The mean age of onset

#### KEYWORDS

Antipsychotics; ambulatory care; polypharmacy; psychotic disorders; retrospective studies

was 27.17 ( $\pm 10.76$ ). The most common diagnosis is schizophrenia, which is 63.6% ( $n=150$ ). Psychiatric co-morbidity was found in 29.7% of the patients. The proportion of patients with medical comorbidity was 40.3% ( $n=95$ ). 14.4% ( $n=34$ ) of the patients have a family history of psychotic disorder. 66.1% of the cases ( $n=156$ ) had at least one hospitalization in our hospital. 27.5% ( $n=65$ ) of the patients were administered ECT treatment. When the psychopharmacological treatments used by the patients were reviewed, it was seen that olanzapine was the most commonly used antipsychotic agent with 36.0% ( $n=85$ ). 64.8% ( $n=153$ ) of the patients use at least one depot antipsychotic. In 13 cases depot antipsychotics were used in the form of double or triple combinations. Of the patients, 3.8% ( $n=9$ ) were using only one antipsychotic agent. There was a significant positive correlation between the age of onset of illness, the mean duration of recent hospitalization, ECT and clozapine treatment application, and Clinical Global Impression (CGI) disease severity scores.

**Conclusions:** This retrospective study assessed the importance of psychotic disorders and especially long-term follow-up of schizophrenia, treatment protocols, and their effect on treatment outcomes.

**Table 1.** Sociodemographic data.

		n	%
Gender	Male	123	52.1
	Female	113	47.9
Employment status	Employed	47	19.9
	Unemployed	189	80.1

**Table 2.** Diagnoses.

	n	%
Schizophrenia	150	63.6
Schizoaffective disorder	72	30.5
Delusional disorder	7	3.0
Substance induced psychosis	5	2.1
Brief psychotic disorder	2	0.8

**Table 3.** Comorbidities.

	n	%
Major depressive disorder	22	9.3
Obsessive-compulsive disorder	22	9.3
Mild mental retardation	7	3.0
Anxiety disorders	5	2.1
Borderline intellectual functioning	4	1.7

**Table 4.** Oral medications.

		n	%
Olanzapine		85	36.0
Quetiapine		80	33.9
Aripiprazole		60	25.4
Amisulpride		57	24.2
Risperidone		31	13.1
Paliperidone		22	9.3
Clozapine		20	8.5
Chlorpromazine		12	5.1
Other antipsychotics		15	6.3
Biperiden		89	37.7
Mood stabilizers	Valproic acid	52	22
	Lamotrigine	17	7.2
	Other	8	3.4
	Total	77	32.6
Antidepressants	SSRI	48	20.3
	SNRI	17	7.2
	Other	6	2.5
	Total	71	30.0

**Table 5.** Depot antipsychotics.

	n	%
Paliperidone palmitate	49	20.8
Risperidone microspheres	35	14.8
Zuclopenthixol decanoate	33	14.0
Haloperidol decanoate	12	5.1
Flupenthixol decanoate	10	4.2

**Table 6.** CGI scores.

		n	%
Severity scale	1-3	117	49.6
	≥4	119	50.4
Efficacy index	0	100	38.1
	≥1	136	61.9

Abstract:0378

## Metabolic Syndrome in Patients with Schizoaffective Disorder and Relationship with the Antipsychotics

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### ABSTRACT

**Objective:** Metabolic syndrome is highly prevalent in patients with schizophrenia. The use of atypical antipsychotics also increases the risk of metabolic syndrome. In this study, we aimed to determine the relationship between schizoaffective disorder and risk of incident metabolic syndrome and the associated drugs used.

**Methods:** The study group consisted of 77 outpatients with schizoaffective disorder defined by DSM-IV criteria. The clinical, biochemical, and anthropometric parameters analyzed were systolic and diastolic blood pressure (mmHg), body mass index (kg/m<sup>2</sup>), fasting glucose (mg/dl), serum triglycerides, total cholesterol, high-density lipoprotein, and low-density lipoprotein. Metabolic syndrome was defined by using the National Cholesterol Education Program-Adult Treatment Protocol and National Cholesterol Education Program-Adapted Adult Treatment Protocol.

**Results:** Metabolic syndrome was found in 33.8% of the patients according to the National Cholesterol Education Program-Adult Treatment Protocol diagnostic criteria, 36.4% according to National Cholesterol Education Program-Adapted Adult Treatment Protocol diagnostic criteria. When we grouped patients into treated with typical antipsychotic, atypical antipsychotics and typical & atypical antipsychotics in combination groups; there were no significant differences for MetS between the three groups. No significant differences were found between the frequency of MetS with the use of the mood stabilizers. In our study, MetS prevalence was significantly higher in study patients using antidepressants in combination with antipsychotics.

**Conclusions:** The results suggested that metabolic syndrome was common among patients with schizoaffective disorder. Further systematic studies based on long-term observation should be conducted in order to replicate our findings and confirm the true prevalence of MetS in schizoaffective disorder.

### KEYWORDS

Schizoaffective disorder; metabolic syndrome; antipsychotic

**Table 1.** ATP III ve ATP III A Metabolic Syndrome Diagnostic Criteria.

Waist circumference	Male> 102 cm	Female> 88 cm
Triglyceride	≥ 150 mg/dl	
HDL	Male< 40 mg/dl	Female< 50 mg/dl
Blood pressure	≥ 130/85 mmHg	
Fasting blood glucose	≥110 (according to ATP III)	≥100 (according to ATP III A)

### Sociodemographic and Clinical Characteristics of Patients.

Age	36.47±11.251
Disease onset age	23.81±8.607
Gender, Male	47 (%61)
Gender, Female	30 (%39)
Disease duration	12.6±9.0
Body mass index	29.12±5.0
Smoking, Yes	38 (%49.4)
Smoking, No	39 (%50.6)
Suicide attempt story, Yes	29 (37.7%)
Suicide attempt story, No	48 (62.3%)



## Frequency of Metabolic Syndrome According to ATP III, ATP III A and Definitions.

One diagnosed with metabolic syndrome (n)	26	28
One not diagnosed with metabolic syndrome (n)	51	49
Frequency of metabolic syndrome (%)	33.8	36.4

Abstract:0020

## Temperament and Character Dimensions of Personality in Patients with Generalized Anxiety Disorder

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### ABSTRACT

**Objective:** It is known that a complex relationship is present between anxiety and personality. In this study, we aimed to compare the clinical features and personality traits of patients with GAD and healthy controls. We hypothesized that Harm Avoidance scores would be higher and predictive of GAD compared to the healthy controls.

**Methods:** This study was conducted in outpatients with GAD who presented to the Bagcilar Training and Research Hospital's Outpatient Psychiatry Clinic. The sample was comprised of 40 outpatient (30 women, 10 men) who met Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria for GAD, who were not under any medication treatments. The control group comprised of 40 healthy controls (23 women, 17 men). Semi-structured sociodemographic data form, Temperament and Character Inventory (TCI), General Anxiety Disorder Scale (GAD-7), Beck Depression Inventory (BDI), the Beck Anxiety Inventory (BAI), State-Trait Anxiety Inventory (STAI-I and II) were administered to the participants. All statistical analyses were performed using SPSS for Windows, Version 23.0.

**Results:** Impulsiveness subscale of Novelty Seeking; Harm Avoidance and its subscales of Anticipatory worry, Fear of uncertainty, Shyness with strangers, and Fatigability and astheniascores were significantly higher in GAD patients compared to the control group. Harm Avoidance and its subscales of Anticipatory worry, Fear of uncertainty, Shyness with strangers, and Fatigability and asthenia scores were significantly highly positively correlated with the BDI, BAI, STAI-I / STAI-II, and GAD-7 scores. When GAD-7 scores was entered as the dependent variable and age and gender were controlled in regression analysis, Harm Avoidance and its subscale of Shyness, Persistence, and Self-Transcendence were significantly predictive of GAD-7 scores.

**Conclusions:** Temperament and character traits of the GAD patients were significantly different from the healthy control subjects. HA scores were higher and predictive of GAD compared to healthy controls.

### KEYWORDS

General Anxiety Disorder; temperament and character inventory; personality; harm avoidance

Abstract:0156

## Neurocognitive Functions in Generalized Social Anxiety Disorder

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### ABSTRACT

**Objective:** The purpose of this study was to evaluate neurocognitive functions of social anxiety disorder patients and to examine the relationship of neurocognitive functions with the severity of the disease, anxiety levels, and several sociodemographic factors.

**Methods:** The study was conducted on 30 patients who had been diagnosed with generalized type social anxiety disorder at the Psychiatry Clinic of Ondokuz Mayıs University, and 30 age- and gender-matched healthy controls. The patients were assessed by the Hamilton Anxiety Scale (HAM-A), State-Trait Anxiety Inventory (STAI), and Liebowitz Social Anxiety Scale (LSAS). Both study groups were administered the Wisconsin Card Sorting Test (WCST), Stroop test, Auditory Verbal Learning Test (AVLT), A and B forms of Trail Making Test (TMT) to compare neurocognitive test performance of the groups.

**Results:** Social anxiety disorder patients had lower performance than the control group for total number of errors, number of perseverative errors, number of non-perseverative errors, and

### KEYWORDS

Social anxiety disorder; neurocognitive functions; executive functions; attention; memory

number of completed categories in WCST; the completion time for TMT-A and B forms; the completion time for part one, three, four and five of Stroop test; and immediate memory scores from AVLT. There was a negative correlation between the education period of patients and the completion time for A and B forms of TMT, number of total errors in WCST, number of perseverative and nonperseverative errors. Positive correlations were found between the education level and the number of completed categories in WCST and delayed recall scores.

**Conclusions:** As a result, social anxiety disorder patients had impaired attention, executive functions and immediate memory performance compared to the healthy control group. The memory functions of social anxiety disorder patients were impaired with increased age.

Abstract:0043

## Attention-Deficit/Hyperactivity Disorder in Children Who Underwent Liver Transplantation

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### ABSTRACT

**Objective:** We planned to examine the frequency of ADHD in children with liver transplantation and the possible causes of this disorder.

**Methods:** Sixty-two children aged between 6 and 18 years, who had liver transplantation between 2003 and 2015 in Başkent University Medical School Hospital was participated in the study. Primary diagnoses, age of transplantation, duration of pre-transplantation illness, duration of hospitalization and intensive care unit stay before and after transplantation, Child Pugh and PELD scores, donor type, prematurity, history of low birth weight, convulsion, familial epilepsy, and maternal smoking during pregnancy were all recorded. K-SADS (Schedule for Affective Disorders and Schizophrenia for School Aged Children-Kiddie-SADS-Present and Lifetime Version) were administered on all children and their parents by the clinical interviewer who is a specialist in child and adolescent mental health and DSM-IV Axis I diagnoses were determined. Patients were evaluated with Conners' Parent-Teacher Rating Scale (CPRS-CPTS).

**Results:** Six of the 62 patients (9.7%) were diagnosed with ADHD. 4% of the girls in the sample (1/25); 13.5% of men (5/37) were diagnosed with ADHD. The only patient who was diagnosed with inattentive type of ADHD was female, while the other five were male. The only patient who was diagnosed with inattentive type of ADHD was female, while the other five were male.

**Conclusions:** In our study the rate of ADHD was slightly higher than the proportion of community-based studies and lower than studies conducted with children with liver transplants. This suggested the effects of hepatic transplantation on cognitive function and attention. To the best of our knowledge, this study is the first study to examine ADHD in children with liver transplants in Turkey.

### KEYWORDS

Attention-deficit/hyperactivity disorder; liver transplantation

Abstract:0094

## Incidence of Internet Addiction in Adult Attention-Deficit/Hyperactivity Disorder

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### ABSTRACT

**Objective:** In this study, we aimed to determine the internet use features of adult attention-deficit/hyperactivity disorder (ADHD) patients who were regularly followed-up at the Haydarpaşa Numune Research and Training Hospital Psychiatry Department's ADHD Outpatient Clinic.

**Methods:** This study included 30 patients who were diagnosed with adult ADHD aged between 18–31 years. Participants rated their ADHD symptoms in childhood retrospectively, using short

### KEYWORDS

Adult ADHD; internet; internet addiction



version of Wender Utah Rating Scale which consisting of 25-items on a five-point Likert-scale. Participants rated current adult ADHD symptoms with the Adult ADHD DSM-IV-Based Diagnostic Screening and Rating Scale and severity of symptoms measured by the Adult ADHD Self-Report Scale (ASRS). Internet addiction was assessed with Young's Internet Addiction Scale.

**Results:** We determined that none of 30 Adult ADHD patients have been diagnosed with Internet Addiction. 29 of patient have moderate internet use although 1 of patients have risky internet use. The results revealed that total ASRS scores ( $p=0.020$ ), total Adult ADHD DSM-IV-Based Diagnostic Screening and Rating Scale scores ( $p=0.036$ ), and the Attention Deficit related properties subscale scores ( $p=0.042$ ) were significantly correlated with the internet addiction scale total score. Subscale of the self report scales including; failing to finish schoolworks, chores, or duties at workplace, difficulty of following through on instructions ( $p=0.017$ ), restlessness; impaired inhibitory performance ( $p=0.017$ ), feeling not confident ( $p=0.017$ ), difficulty of managing time ( $p=0.047$ ), failing to give close attention to details or making careless mistakes ( $p=0.037$ ) were significantly correlated with the Internet Addiction Scale total score.

**Conclusions:** Clinical features, which are characteristic of Adult ADHD could have same shared etiology with Internet Addiction. Furthermore, ADHD patients are more likely to have an internet addiction diagnosis. However we thought that this result had to be supported with studies with larger samples.

Abstract:0239

## Attention-Deficit/Hyperactivity Disorder and Impulsivity in Female Patients with Fibromyalgia

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### ABSTRACT

**Objective:** Data indicating greater role of central nervous system in the etiology of fibromyalgia is increasing. Neurotransmitters like dopamine and norepinephrine are shown to be common factors both in the etiology of fibromyalgia and attention-deficit/hyperactivity disorder (ADHD). Impulsivity is not a well-studied subject yet. The goal of the present study is to determine the link between fibromyalgia and ADHD and also to reveal the relevance of impulsivity dimension.

**Methods:** The study sample is comprised of 78 female with fibromyalgia who presented to The Physical Medicine and Rehabilitation Outpatient Clinic in Ceyhan State Hospital and 54 healthy female controls. The diagnosis of fibromyalgia was made by an experienced physical medicine and rehabilitation specialist through consideration of American Rheumatology Association Diagnostic Criteria (1990). The diagnosis of ADHD was made by an experienced psychiatrist using the DSM-5 criteria. The Adult Attention Deficit Hyperactivity Disorder Self-report Scale, the Wender-Utah Rating Scale (WURS), the Barrat Impulsiveness Scale (BIS)-Short Form.

**Results:** Mean age of fibromyalgia group and control group was  $40.3 \pm 9.39$  and  $38.9 \pm 8.92$ , respectively. ADHD was diagnosed in 29.5% of fibromyalgia group, and 7.4% of control group; childhood and adolescent ADHD ratios were 33.3% and 11.1%, respectively. These findings were statistically significant ( $p=0.002$ ,  $p=0.003$ ). Fibromyalgia group scores were found to be significantly higher than control group scores of WURS; ADHD self-report scale, attention subscale, hyperactivity-impulsivity subscale; BIS non-planning and attentional impulsivity ( $p<0.05$ ,  $p<0.01$ ,  $p<0.01$ ,  $p<0.05$ ,  $p<0.01$ ,  $p<0.05$ ; respectively).

**Conclusions:** Present study has shown that both adult and childhood ADHD is pretty common occurrence in female fibromyalgia patients. There was a link between fibromyalgia and impulsivity. We concluded that certain subtypes of fibromyalgia and attention-deficit/hyperactivity disorder might have shared common etiological pathways.

### KEYWORDS

ADHD; fibromyalgia; hyperactivity; impulsivity

Abstract:0426

## Attention-Deficit/Hyperactivity disorder Impact on Symptom Severity and Quality of Life Measures in Adult Panic Disorder Patients

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### ABSTRACT

**Objective:** The evaluation and the impact of ADHD comorbidity across adult panic disorder (PD) patients are very limited. The objective of our study was to evaluate the impact of ADHD symptoms on panic disorder patients' symptom severity and quality of life.

**Methods:** Adult patients diagnosed with PD based on DSM-5 criteria were included. The participants filled the Panic and Agoraphobia Scale (PAS), ADHD Adult Self Report Scale (ASRS) and a questionnaire including patients' sociodemographic variables and life quality measures. The patients were divided into two subgroups according to the cut-off score of the ASRS which was determined as 30 points in total ASRS scores according to a previous study on Turkish Adult ADHD patients. Both subgroups were compared for PAS scores and quality of life measures.

**Results:** 25 patients with PD were enrolled in this study. 60% of the patients were female and the mean age was 31.96±4.2 years. 36% of the participants (n=9) scores were above the cut-off score and the mean ASRS scores was 36.2 in high ASRS group. 64% of the participants (n=16) were low ASRS group with mean ASRS scores of 20.6. A statistically significant positive difference was found between low and high groups in terms of total scores of the PAS (p=0.02). PAS total score was also significantly correlated with both ASRS inattentive (r=0.62, p<0.001) and hyperactive/impulsive subscales (r=1.24, p<0.001). Gender, educational level, monthly income, marital status, divorce, smoking and alcohol consumption were not statistically different between high and low ASRS groups.

**Conclusions:** These results confirmed a relationship between ADHD and PD by showing that the ADHD symptoms had positive impact on PD symptoms' severity. The study results did not show a negative impact on life quality measures as expected. The reason of some of the unpredicted results could be low number of participants or the negative impact of PD on quality of life.

### KEYWORDS

Adult; attention-deficit/hyperactivity disorder; panic disorder

Abstract:0018

## The Relationship Between Anxiety Levels and Burnout in Mothers of Children with Autism

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### ABSTRACT

**Objective:** Compared with other parents, mothers of children with autism spectrum disorder or other neurodevelopmental disabilities experience more stress, illness, and psychiatric problems. Although the cumulative stress and the high disease burden of these mothers is well-known, there is limited data about burnout in this population. The aim of this study was to examine the anxiety levels and burnout levels in mothers of children with autism and examine the relationship between these two variables.

**Methods:** The research sample included 54 mothers of children with autism spectrum disorder who regularly attend to special training and rehabilitation centers for children with autism and mental retardation in Istanbul, Turkey. A detailed socio-demographic and clinical data form, Beck Depression Inventory and the adapted version of Maslach Burnout Inventory for mothers were used to assess the participants.

**Results:** Statistical analysis revealed that there was a significant relationship between burnout levels and various sociodemographic factors such as level of education, employment status, and level of income. Beck Anxiety Inventory scores were significantly correlated with burnout levels. Burnout levels were also found to be significant predictors of anxiety levels according to linear regression analysis.

**Conclusions:** Level of education, employment status, and level of income appeared to be important factors that interfere with burnout levels in mothers of children with autism. Burnout levels contributed to increase of anxiety levels in these mothers. Recognizing anxiety and burnout in mothers of children with autism may be important for child psychiatrists and social workers when considering family interventions in treatment of autism.

### KEYWORDS

Autism; mothers; anxiety; burnout

Abstract:0075

## Body Mass Index in Patients with Opioid Use Disorder and Tobacco Use Disorder

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### ABSTRACT

**Objective:** Substance use disorders are associated with several negative health outcomes such as cardiovascular diseases. Use of alcohol, some illicit drugs, and tobacco are also known to affect appetite. Therefore, substance use may be associated with body-weight abnormalities. In this present study, we examined whether body mass index (BMI) differ with respect to the presence of current substance use. Furthermore, we examined whether the type of substance (opioid vs. tobacco) used created any differences in the BMI levels.

**Methods:** One hundred fifty male heroin-dependent adults were recruited from the detoxification and therapy unit of a university hospital. All patients met the DSM-5 criteria for opioid use disorder and were positive on urine drug tests, which are employed routinely in the center. Also, 76 volunteers with tobacco use disorder and 183 healthy control subjects without current or lifetime history of substance-related disorders were recruited from the same geographical area as the other study groups. BMI is defined as the weight in kilograms divided by the square of the height in meters.

**Results:** The mean of BMI of the patients with opioid use disorder ( $22.1 \pm 2.9$ ) was significantly lower ( $p < 0.001$ ) than that of non-substance-using control group ( $23.7 \pm 3.4$ ), but comparable ( $p = 0.07$ ) to that of patients with tobacco use disorder ( $23.2 \pm 3.4$ ). There was no difference between the BMI levels of patients with tobacco use disorder and controls ( $p = 0.475$ ).

**Conclusions:** According to these findings, opioid use is associated with a downward shift in BMI compared to an age-matched control group. The fact that the patients with opioid use disorder were also -unexceptionally- using tobacco might indicate that opioid use, rather than nicotine use, is associated with decreased appetite. However, further studies, focusing on appetite and appetite-related peptides such as leptin and ghrelin should be conducted to better understand the underlying mechanisms of decreased BMI in patients with opioid use disorder.

### KEYWORDS

Body mass index; opioid use disorder; tobacco use disorder

Abstract:0135

## The Relationship Between Suicide and Synthetic Cannabinoids in Adjustment Disorder

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### ABSTRACT

**Objectives:** Although it has been known that adult patients with an adjustment disorder diagnosis do not have suicidal behavior similar to adolescents, the validity of this in patient groups is unknown. The aim of the study was to determine the prevalence and risk factors associated with suicide in patients with adjustment disorder that resulted with suicide by young men who had been performing military duty.

**Methods:** Out of 202 young men with a diagnosis of adjustment disorder, 125 (61.9%) were admitted with adjustment problems, and 77 (38.1%) were admitted with suicide attempt. Demographic characteristics, substance abuse, psychiatric disorders, suicide attempts, family suicide, self-mutilation, as well as the physical and sexual trauma histories of both groups were compared.

**Results:** 83.1% ( $n = 64$ ) of patients who attempted suicide selected methods unlikely to fail including firearms, hanging, jumping, cutting tools, and burning. Significant differences were found in the use of synthetic cannabinoids and self-mutilation between the two groups who attempted suicide versus those who did not. In addition, the use of synthetic cannabinoids was associated with past suicide attempts. It is difficult to generalize the results of the study to all patients with adjustment disorder.

**Conclusions:** These findings may help to predict suicidal behavior in young men showing symptoms of adjustment disorder.

### KEYWORDS

Suicide attempt; adjustment disorder; synthetic cannabinoid; self-mutilation

Abstract:0056

## Brain-Derived Neurotrophic Factor Levels in First Psychotic Episode Drug-Naive Schizophrenic Patients

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### ABSTRACT

**Objective:** Schizophrenia has been demonstrated many hypotheses on the pathogenesis. One of the most studied hypotheses is the neurodevelopmental hypothesis. BDNF (brain derived neurotrophic factor) is one of the important factors behind such disorders, causes neurons to be produced, reproduce and survive. Although there is most of evidence that BDNF levels vary in brains of patients with schizophrenia, the results should be controversial. Studies have also been reported in the literature where there is no difference in serum BDNF concentrations compared to controls. Our aim in this study was to examine plasma levels of BDNF in first episode of schizophrenia in comparison with BDNF from healthy controls.

**Methods:** The sample group of the study was formed from the first episode patients who presented to the Ankara Numune Education and Research Hospital's Psychiatry Clinic. In total 60 patients participated in the study, 30 of whom are schizophrenia patients and 30 are the healthy control group matched to the other group in terms of age and gender. The PANSS scale was used to assess the clinical status of the patients.

**Results:** When the demographical features of the participants were analyzed; 12 (40%) of both the patient and the control group are women, 18 (60%) were men. Both groups were similar in terms of age and duration of education ( $p=0.058$ ,  $p=0.065$ ; respectively). The mean PANSS score of the patient group was  $106.47 \pm 9.17$ . When the BDNF levels of both groups are compared, the difference between the average BDNF levels of the groups were statistically significant ( $t=-14.75$ ;  $p<0.001$ ).

**Conclusions:** BDNF levels at the onset of psychosis suggest that it might contribute to the pathogenesis of schizophrenia and possibly a neurobiological marker for possible early treatment intervention. Further research is needed to examine the specificity of BDNF in schizophrenia compared to other neurodegenerative and neuropsychiatric disorders.

### KEYWORDS

Brain-derived neurotrophic factor; first-episode psychosis; schizophrenia

Abstract:0181

## Neural Stem Cell Treatment Prevents Neuroinflammation and Increases Hippocampal BDNF Levels in Genetic Absence Epileptic WAG/Rij Rats

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### ABSTRACT

**Objective:** Studies have revealed cognitive impairments in absence epileptic patients and animal models of absence epilepsy. WAG/Rij rats, a strain of Wistar origin, is a valid genetic model of generalized absence epilepsy. We previously reported that neural stem cell (NSC) treatment ameliorated cognitive dysfunctions in WAG/Rij rats. In this study we examined in WAG/Rij rats whether NSC treatment reduces both neuroinflammation and hippocampal BDNF levels.

**Methods:** Two-month old Wistar and WAG/Rij rats were divided into three subgroups: Control, NSC and Sham ( $n=10$  in each). NSCs taken from fetal medial ganglionic eminence were transplanted into perioral regions of the primary somatosensory cortex of the NSC groups and we waited for 3 months for cell differentiation. After 3 months, hippocampal BDNF expression was assessed by immunohistochemically. Hippocampal TNF- $\alpha$  and IL-1 $\beta$  levels were evaluated by ELISA. One-way ANOVA and Tukey's post hoc test used for statistical analysis. The immunoreactivity scores were compared by the Kruskal-Wallis test following Dunn's multiple comparison test. The alpha level

### KEYWORDS

Absence epilepsy; BDNF; hippocampus; neural stem cell; neuroinflammation; WAG/Rij

of 0.05 was set up to indicate statistical significance

**Results:** We found reduced hippocampal BDNF immunoreactivity and increased hippocampal TNF- $\alpha$  and IL-1 $\beta$  levels in WAG/Rij control group compared to Wistar control group, while these values were similar in all Wistar groups. However, NSC treatment in WAG/Rij rats significantly enhanced BDNF immunoreactivity and decreased hippocampal TNF- $\alpha$  and IL-1 $\beta$  levels compared to WAG/Rij control group. In WAG/Rij sham group, both BDNF immunoreactivity and TNF- $\alpha$  and IL-1 $\beta$  levels were similar to that of the WAG/Rij control group.

**Conclusions:** The findings of this study showed that NSC treatment enhanced BDNF expression and decreased TNF- $\alpha$  and IL-1 $\beta$  levels in the hippocampus of genetic absence epileptic WAG/Rij rats. These actions of NSC treatment may be responsible, at least in part, for its preventive effect on cognitive impairment in absence epilepsy in humans.

Abstract:0220

## The Effects of Cardiovascular Diseases and Medications on Structural Brain Outcomes

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### ABSTRACT

**Objective:** The aim of this study was to examine the effects of cardiovascular medications and diseases on white matter volume (WMV), gray matter volume (GMV), and global white matter fractional anisotropy (FA) and mean diffusivity ( $\bar{D}$ ) as measures of white matter integrity measured with magnetic resonance imaging (MRI).

**Methods:** A random sample of 552 of Whitehall II Phase 10 and 11 participants; gave informed consent to attend the imaging sub-study at the Oxford Centre for Functional MRI of the Brain (FMRIB). Sociodemographic information, the medical history and medication data were collected between April 2012 and February 2014. Multivariate linear regression analyses were used to evaluate the effects of cardiovascular medications, age and gender and cardiovascular diseases separately on WMV, GMV, FA and  $\bar{D}$  measures.

**Results:** Totally, 552 participants were recruited to the study, 444 (80.4%) were men, the mean age of the participants was 69.5 (SD=5.3) years. In the crude models, GMV, FA and  $\bar{D}$  were highly related to how many different cardiovascular medications participants took. This did not change after correcting for age and gender and for cardiovascular diseases. In contrast, WMV was not associated with the number of cardiovascular medications in the crude model or after correction for age, sex and cardiovascular illness. In the fully corrected models; cardiovascular diseases made a significant contribution to WMV, but not to GMV or FA and  $\bar{D}$  independent of medication.

**Conclusions:** The results suggest that number of cardiovascular medications had an effect on gray matter volume and white matter integrity, independent of age, gender, and number of cardiovascular diagnoses. So intensity of treatment may be related to the architecture of gray and white matter, while it had no effect on white matter volume. However, the number of cardiovascular diagnoses had a direct effect on WMV, which was not mediated by number of medications.

### KEYWORDS

Brain; cardiovascular agents; cardiovascular diseases; gray matter; white matter

Abstract:0223

## The Relationship Between Neuropsychiatric Symptoms and Default-mode Network Connectivity in Alzheimer's Disease

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**ABSTRACT**

**Objective:** Neuropsychiatric symptoms of dementia are prevalent and extremely burdening for the patient and caregivers, but underlying mechanism of these symptoms has not been examined. This study aimed to examine the relationship between neuropsychiatric symptoms and default-mode functional connectivity in Alzheimer's disease.

**Methods:** Functional magnetic resonance imaging was conducted on seventy patients with Alzheimer's disease during rest. We conducted seed-based functional connectivity analysis and correlated the scores on neuropsychiatric inventory syndromes (apathy, hyperactivity, affective, and psychosis syndrome) with maps of connectivity in the default-mode network.

**Results:** There was a significant correlation between decreased connectivity in the medial prefrontal cortex of the anterior default-mode network and hyperactivity (agitation, irritability, aberrant motor behavior, euphoria, and disinhibition) syndrome.

**Conclusions:** Our study demonstrated that hyperactivity syndrome is related to hypoconnected default-mode network in Alzheimer's disease. These findings suggest that specific network alterations are associated with certain neuropsychiatric syndromes.

**KEYWORDS**

Neuropsychiatric symptoms; hyperactivity; Alzheimer's disease; default-mode network; medial prefrontal cortex; functional magnetic resonance imaging

Abstract:0326

## Olanzapine Reversed MK-801 Induced Cell Damage via Akt/GSK-3 $\beta$ / $\beta$ -Catenine Signaling Pathway in SH SY5Y Cell Culture

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**ABSTRACT**

**Objective:** Recent studies have shown that Akt/GSK-3 $\beta$ /  $\beta$ -Catenine intracellular signaling pathway may play a role in pathophysiology of schizophrenia and an important target for the treatment. Glutamatergic N-methyl-D-aspartate (NMDA) receptor antagonists, such as non-competitive antagonist MK-801, are used for establishing animal models of schizophrenia but results are highly controversial in terms of main cellular pathway; Akt/GSK-3 $\beta$ /  $\beta$ -Catenine both for model and effects of antipsychotics. In this study, we aimed to examine the role of Akt/GSK-3 $\beta$ /  $\beta$ -Catenine pathway in SH SY5Y human neuroblastoma cells exposed to MK-801 with and without olanzapine.

**Methods:** In order to examine cell viability, gene and protein expressions with Xcelligence Real Time Cell Analyse (RTCA), Real Time PCR (Rt-PCR) and Western Blot in SH SY5Y cell line were used. Cells were divided into Control, MK-801 (100  $\mu$ M), Olanzapine (10  $\mu$ M), MK-801 +Olanzapine groups. RTCA assay was measured every 15 min, Rt-PCR and Western Blot was conducted 24 hours after treatments. Statistical analysis was performed by one-way or two-way analysis of variance (ANOVA).

**Results:** Our results showed that MK-801 decreased cell viability at 6th, 12th, and 24th hours compared to the control group. Olanzapine pretreatment increased cell viability at 24th hours compared to MK-801 group. In Rt-PCR, MK-801 increased GSK-3 $\beta$  and decreased  $\beta$ -Catenine gene expressions while Olanzapine reduced GSK-3 $\beta$  and elevated  $\beta$ -Catenine gene expressions in both single and MK-801-induced conditions. In Western Blot, MK-801 increased GSK-3 $\beta$ /p-GSK-3 $\beta$  protein expression compared to Control group. Although olanzapine prone to reverse the effect of MK-801, these changes did not reach statistical significance.

**Conclusions:** In our study, we showed that intracellular Akt/GSK-3 $\beta$ /  $\beta$ -Catenine pathway contributed to MK-801 caused cell damage and the effect of MK-801 was partially reversed by olanzapine. It will be beneficial to do further studies to examine same pathway in in vivo models of schizophrenia.

**KEYWORDS**

MK-801; Olanzapine; Schizophrenia; Akt; GSK-3 $\beta$ ;  $\beta$ -Catenin



Abstract:0137

## Assessment of Eating Attitude Behaviours and Obsessive-Compulsive Symptoms of A Group of University Students

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### ABSTRACT

**Objective:** Eating behaviour disorder is a state with both physical and psychosocial dimensions that show themselves with the disorder in one's opinion on his body weight and physical appearance and eating behaviours. The relationship between obsessive-compulsive disorder (OCD) and eating disorders has been known for long years. This study has been carried out in order to assess the eating attitude behaviours and OCD of a group of university students.

**Methods:** This study was carried out on 70 students who studied at Akdeniz University Communication Faculty. The research data, socio-demographic features of the students were collected using the questionnaire form consisting of Eating Attitude Test (EAT-40) and Maudsley Obsessive Compulsive Inventory (MOCI). The anthropometric measurements were performed.

**Results:** The age, body weight, height, BMI, EAT-40 and MOCI scores means of females and males were,  $21.6 \pm 1.39$  and  $21.6 \pm 1.34$  years ( $p > 0.05$ );  $57.9 \pm 8.30$  and  $73.0 \pm 13.61$  kg ( $p < 0.001$ );  $164.8 \pm 5.91$  and  $176.0 \pm 7.57$  cm ( $p < 0.001$ );  $21.3 \pm 2.68$  and  $23.5 \pm 3.38$  kg/m<sup>2</sup> ( $p = 0.004$ );  $17.5 \pm 8.36$  and  $15.9 \pm 9.24$  ( $p > 0.05$ );  $17.8 \pm 7.39$  and  $15.7 \pm 6.49$  ( $p > 0.05$ ), respectively. According to the assessment of the eating attitude score, we determined that 65.6% of women and 73.7% of men had low risk of eating behavior disorder; according to the MOCI score, we found out that the incidence rate of obsessive-compulsive disorder symptoms was high in 53.1% of women, 34.2% of men. No statistically significant relationship was found between the MOCI and EAT-40 scores and BMI classifications of the students ( $p > 0.05$ ).

**Conclusions:** As a result of the study, we concluded that there were differences between the body weight, height, and BMI of the students by gender, but these differences were not associated with the level of incidence of OCD symptoms and eating attitude habits. We think that similar studies should be carried out with a larger sample that assesses the eating attitudes and OCD symptoms of young university students.

### KEYWORDS

Eating attitude; obsessive-compulsive disorder; university student

**Table 1.** Comparison of anthropometric measurements, MOCL, and EAT-40 scores of females and males.

	Women $\bar{X} \pm SD$	Men $\bar{X} \pm SD$	P
Age	$21.6 \pm 1.39$	$21.6 \pm 1.34$	$> 0.05$
Weight	$57.9 \pm 8.30$	$73.0 \pm 13.61$	$< 0.001^*$
Height	$164.8 \pm 5.91$	$176.0 \pm 7.57$	$< 0.001^*$
BMI	$21.3 \pm 2.68$	$23.5 \pm 3.38$	$0.004^*$
MOCI Score	$17.8 \pm 7.39$	$15.7 \pm 6.49$	$> 0.05$
EAT-40 Score	$17.5 \pm 8.36$	$15.9 \pm 9.24$	$> 0.05$

$p < 0.05$  is statistically significant.

**Table 2.** Distribution of MOCI and EAT-40 scores of females and males.

	Women %	Men %
EAT-40 Scores		
Low risk (<21 point)	65.6	73.7
Moderate risk (21–30 point)	28.1	15.8
High risk (>30 point)	6.3	10.5
MOCI Scores		
Low OCD possibility	15.6	28.9
OCD is likely to be diagnosed	31.3	36.8
High OCD possibility	53.1	34.2

Abstract:0172

## Impulsivity in Compulsive Hoarding

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### ABSTRACT

**Objective:** Obsessive Compulsive Disorder (OCD) is not a single entity, but possibly a heterogeneous condition. Multiple factor analytic studies over the years have mostly identified a similar set of dimensions, and a metaanalysis of 21 studies identified four robust factors that include 1) symmetry 2) forbidden thoughts, 3) cleaning and 4) hoarding. There may be considerable diagnostic overlap between hoarding and impulse control disorders. In this study, we examined impulsivity rates with "hoarding" symptom in patients with obsessive compulsive disorder.

**Methods:** Ninety-five OCD patients diagnosed by DSM-5 diagnostic criteria were included. Hoarding severity was scored using Hoarding Rating Scale-Interview (HRS-I). The HRS-I is a 5-item semi-structured interview that measures the severity of hoarding symptoms. The Turkish version of the Barratt Impulsiveness Scale (BIS-11) was used for measuring trait impulsivity.

**Results:** Seventy-one (74%) of the patients were female and 24 (26%) of them were male. The mean age of patients was  $35.12 \pm 11.37$ . Hoarding Rating Scale-Interview score average was 9.95. The mean scores of the subscale scores related to CBT total, attention, motor and unplanned were  $61.67 \pm 10.76$ ;  $16.58 \pm 4.08$ ;  $18.87 \pm 4.73$  and  $26.10 \pm 5.31$ , respectively. Statistically significant correlation was found between HRS-I scores and attention-related impulsivity ( $r=0.286$ ,  $p<0.05$ )

**Conclusions:** Recent neuropsychological studies have identified cognitive deficits in individuals with hoarding, including difficulties with response inhibition, attentional problems, and difficulties with planning or decision making. These cognitive impairments predicted an increased impulsivity. However, we observed a significant difference only with attention-related impulsivity. Given the strong indications that OCD has more cognitive impairment, treatment resistance and co-morbidity, it may be better understood that it is a symptom that needs to be studied.

### KEYWORDS

Obsessive-compulsive disorder; hoarding; impulsivity

Abstract:0226

## Some Clinical Comparisons Between Schizo-Obsessive Disorder and Obsessive-Compulsive Disorder: Preliminary Results

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### ABSTRACT

**Objective:** It is still unclear whether obsessive-compulsive (OC) symptoms in patients with schizophrenia are manifestations of psychosis, or that their presence defines a subgroup of patients who exhibit characteristics of both schizophrenia and obsessive-compulsive disorder (OCD). The aim of this study was to examine whether schizo-obsessive disorder and OCD alone differed in symptomatology or course (episodic vs. chronic) of the OCD.

**Methods:** Diagnosis of schizophrenia and OCD was established using the Structured Clinical Interview for DSM-5 (SCID). 8 patients who met DSM-5 criteria for both schizophrenia and OCD, 11 OCD patients without schizophrenia were included in the study. Self-administered anonymous sociodemographic questionnaire, Yale-Brown Obsessive-compulsive Scale (Y-BOCS) were conducted. A descriptive analysis was made, and the Chi-square and the Mann-Whitney U test was performed to compare the groups.

**Results:** There were no differences in total and subscale scores of Y-BOCS between the two groups. Schizo-OCD patients were significantly more likely to live in rural areas ( $p=0.048$ ), to have a more chronic course ( $p=0.026$ ) and previous history of any psychiatric disorder ( $p=0.040$ ) compared to patients with OCD. The rate of ordering/arranging and, miscellaneous compulsions were significantly higher in patients with schizo-obsessive disorder than in OCD alone.

**Conclusions:** In order to understand whether schizo-obsessive disorder patients represent a subgroup of schizophrenia, future researches are required.

### KEYWORDS

Comorbidity; course; OCD; Schizo-OCD; subtype

Abstract:0152

## Agmatine Produces Antidepressant Effect via Modulation of Neuroinflammation in Chronic Unpredictable Mild Stress Model of Rats: Implication in Inflammatory Perspective of Depression

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*This study was funded by Marmara University (SAG-C-DRP-110915-0417)*

### ABSTRACT

**Objective:** There is evidence that depression is linked to elevated inflammation which predicts antidepressant-resistance. Based on our previous work, agmatine, a novel neurotransmitter with antidepressant activity might also have therapeutic potential for inflammation aspect of depression. Therefore, we addressed the effect of chronically administered agmatine on certain indicators of brain inflammation induced by chronic unpredictable mild stress (CUMS), a well-validated animal model of depression, with regard to behavioral investigations.

**Methods:** Male Sprague Dawley rats (290–320 g) were divided into groups; Control (saline), CUMS (saline), CUMS+Imipramine (10 mg/kg; i.p.), CUMS+Agmatine (40 mg/kg; i.p.), (n=10–12 in each). In CUMS model, various stressors were applied for 6 week. At 3rd week, the treatments were started for 21 days. Sucrose preference test (SPT) was applied in every two weeks. Finally, forced swim (FS) test was performed and rats were sacrificed. Prefrontal cortex tissues were used for Real-time PCR analysis of IL-1 $\beta$ , IL-6, Nod-like receptor protein 3 (NLRP3), NLRP1 and caspase-1. Microglial activation was assessed by immunohistochemical analysis. One-way ANOVA was used for statistical analysis with a p<0.05 value to indicate statistical significance.

**Results:** Sucrose preference was significantly reduced in CUMS exposed rats compared to control group while imipramine and agmatine treatments significantly ameliorated anhedonia behavior. In FS test, imipramine and agmatine treatments caused significant reductions of immobility time induced by CUMS. Agmatine reversed CUMS-induced microglial activation and significant elevations in IL-1 $\beta$ , IL-6, NLRP1, and caspase-1 but not NLRP3 levels. Unlike imipramine, agmatine significantly reduced CUMS-induced IL-1 $\beta$ , IL-6, NLRP1, and caspase-1 levels.

**Conclusions:** Our initial results demonstrated that agmatine exerted antidepressant-like effect in CUMS model of depression. In addition, unlike imipramine agmatine reduced neuroinflammatory response. Therefore, these findings provided translational aspects for clinical studies addressing agmatine as potential antidepressant for treatment-resistant depression especially when occurred with elevated inflammation.

### KEYWORDS

Agmatine; antidepressant; CUMS; depression; inflammasome; neuroinflammation

Abstract:0199

## Effects of Agomelatine Treatment on the Hippocampal Morphology in Diabetic Rats

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### ABSTRACT

**Objective:** Cognitive dysfunction is one of the chronic complications of diabetes mellitus. It has been suggested that diabetes related insufficiencies in learning and memory processes are caused by attenuated synaptic conductance, apoptotic hippocampal neuron loss and altered hippocampal synaptic plasticity. Hence, revealing the effects of potential nootropic drugs (cognitive enhancers) on the hippocampus might help to develop new therapeutic strategies for diabetes-induced cognitive disorders. Agomelatine, an atypical antidepressant drug with notable nootropic potential, is known to promote hippocampal functions. Therefore, we aimed to examine possible promising effect of agomelatine on alterations of diabetic hippocampus.

### KEYWORDS

Agomelatine; Cavalieri method; diabetes mellitus; hippocampus

**Methods:** Male Sprague-Dawley rats were used for the experiments. Diabetes was induced by a single dose (50 mg/kg) of intravenous streptozotocin injection. 4 weeks after, diabetic rats were treated with agomelatine (80 mg/kg/day, p.o) for 14 days. After completion of the treatment, rats were perfused and sections from their brains, obtained by systematic randomized sampling method, were stained with the Nissl method. The volumes of dentate gyrus and CA1-CA3 regions of the hippocampus were estimated by the Cavalieri method. The experimental protocol of this study was approved by the Anadolu University Animal Experiments Local Ethics Committee.

**Results:** In diabetic rats, total volumes of the hippocampal pyramidal cell layer and the granule cell layer of the dentate gyrus were higher than the corresponding values of the normoglycemic control animals. Subacute treatment with agomelatine reduced the increased volumes of the pyramidal and granular cell layers in diabetic animals.

**Conclusions:** Results of this study suggested that agomelatine treatment has restored the alterations occurred in the hippocampi of diabetic rats. Improvement in the impaired hippocampal neurogenesis, dendritic remodeling or preventing excessive apoptotic processes may be some possible mechanisms underlying the beneficial effect of agomelatine on diabetic hippocampus. However, exact mechanism of this action needs to be clarified with further studies.

Abstract:0202

## Beneficial Effect of Tianeptine Treatment on Streptozotocin-Induced Hyperalgesia

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### ABSTRACT

**Objective:** Neuropathy, which is commonly accompanied with pain, is one of the most frequent chronic complications associated with diabetes mellitus; in accordance, most of the diabetic patients are known to suffer from severe hyperalgesia and allodynia. As a preferable way of treatment, anticonvulsants and antidepressants are prescribed in the pharmacotherapy of neuropathic pain. Tianeptine, an atypical antidepressant, has been reported for its therapeutic potential against pain disorders. However, probable effect of tianeptine against diabetic neuropathic pain has not been examined to date; therefore, we aimed to examine the effects of tianeptine treatment on diabetes-induced hyperalgesia in rats.

**Methods:** Diabetes was induced by a single intravenous injection of streptozotocin (60 mg/kg); 4 weeks after the induction, and following the occurrence of nociceptive perception deficits in rats, tianeptine treatment was started (20 mg/kg/day). At the end of a 14-days administration period, effect of the drug on diabetes-induced hyperalgesia was examined using the Hargreaves plantar tests; besides, motor coordination of the animals was tested by using Rota-rod apparatus. The experimental protocol of this study was approved by the Anadolu University Animal Experiments Local Ethics Committee.

**Results:** Paw-withdrawal latency of diabetic rats, measured in the plantar tests, were significantly lower than that of the normoglycemic rats. On the other hand, subacute administration of tianeptine for 7 and 14 days caused significant increase in reduced paw-withdrawal latency of the diabetic rats. It was also observed that tianeptine did not change the falling off latencies of the animals in the Rota-rod test.

**Conclusions:** Our data revealed that subacute administration of tianeptine significantly improved diabetes-induced hyperalgesic responses of the rats, without affecting their motor coordination. These results indicated that tianeptine might be an alternative drug for the treatment of diabetes-induced hyperalgesia. However, further clinical studies are required to replicate the preliminary findings highlighted in this study.

### KEYWORDS

Diabetes mellitus; hyperalgesia; neuropathy; streptozotocin; tianeptine

Abstract:0237

## Mianserin-induced Alterations in the Brain Monoamine Levels of Diabetic Rats

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**ABSTRACT**

**Objective:** Diabetes mellitus-induced chronic damage to central nervous system increases the risk of psychiatric disorders. Although several antidepressants or anxiolytics are currently prescribed for the therapy of emotional disorders, none of them is more promising than the others for diabetic population. Therefore, revealing the efficacy of psychoactive drugs in diabetic subjects might help psychiatrist for choosing favorable medication for diabetic patients. As an antidepressant drug, mianserin has not been examined for its potential on diabetes-induced alterations in brain neurotransmitter level, so far. Therefore, in this study, we planned to examine efficacy of mianserin treatment on brain monoamine levels of diabetic rats.

**Methods:** Diabetes was induced by a streptozotocin injection (50 mg/kg, i.v). 4-week diabetic rats were treated with mianserin (45 mg/kg/day, p.o.) for 14 days. Then, modified forced swimming test (MFST) was conducted. Following the behavioral tests, rats were sacrificed and brains were removed. After a conventional homogenization process, the resulting supernatant was removed and used for further analytical studies. Determination of serotonin, noradrenaline and dopamine levels was performed by liquid chromatography. The experimental protocol has been approved by the Local Ethical Committee on Animal Experimentation of Anadolu University, Eskisehir, Turkey.

**Results:** In MFST, immobility behavior of diabetic rats were found to be increased regarding to the normoglycemic control animals, and mianserin treatment significantly reduced this increase. Chromatographic analyses proved that serotonin, noradrenalin and dopamine levels were decreased in brain homogenates of diabetic rats with respect to the normoglycemic controls. But, mianserin treatment significantly increased the reduced central noradrenaline and dopamine levels of diabetic rats; brain serotonin levels was also increased, slightly.

**Conclusions:** Obtained results indicate that mianserin treatment, at daily 45 mg/kg dose, restores depression-like behaviors of diabetic rats to normal levels. Increased brain monoamine levels seem to be the related to this beneficial effect of mianserin.

**KEYWORDS**

Depression; liquid chromatography; mianserin; monoamine

Abstract:0265

## Purinergic 2X7 Receptor Antagonism Attenuates Neuroinflammation in Prefrontal Cortex in Chronic Stress Model of Rats

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**ABSTRACT**

**Objective:** Purinergic 2X7 receptor (P2X7R) activation has recently been considered to be involved in depression. Microglial activation has been considered as one of the major issue and in our previous study antidepressant-like effect of Brilliant Blue G (BBG), a highly selective P2X7R antagonist, has been shown. The aim of the present study was to examine possible effect of BBG on certain inflammatory markers induced by chronic unpredictable mild stress (CUMS) model in rats.

**Methods:** Male Wistar Albino rats were divided into groups such as Control (saline), CUMS, CUMS +BBG25 (25 mg/kg; i.p.), CUMS+BBG50 (50 mg/kg; i.p.) groups (n=10–12 in each). In CUMS model, various stressors were applied for 40 days. On day 20, the treatment of BBG was started for 20 days. At the end, sucrose preference is determined as a marker of anhedonia. Caspase-1, CD11b, NF-KB mRNA levels were determined by real-time PCR in prefrontal cortex. One-way analysis of variance and Tukey's test were used for statistical analyses.

**Results:** Sucrose preference was significantly decreased in CUMS group and increased in CUMS +BBG50 groups compared to control and CUMS groups respectively. CUMS exposure resulted in significantly higher mRNA levels of Caspase-1, NF-KB and CD11b as indicators of neuroinflammation. On the other hand, both CUMS+BBG25 and CUMS+BBG50 groups had significantly lower levels of caspase-1, NF-KB and CD11b compared to CUMS groups.

**Conclusions:** Microglial activation has fundamental role in neuroinflammation, we examined indicators present in microglia such as caspase-1 as it is responsible for the production and release of mature IL-1 beta, NF-KB, a transcriptional factor for cytokines and CD11b, a marker of microglial activation. Our results suggested that chronic administration of P2X7R antagonist BBG produced antidepressant-like effect, which might at least partially be related to reduce stress-induced prefrontal cortex inflammatory mediators linked to microglial activation.

**KEYWORDS**

Brilliant blue G; CUMS; depression; neuroinflammation; purinergic; P2X7



Abstract:0267

## Ketamine Suppresses Microglial Activation and Induce Antidepressant-like Effect in Rats

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### ABSTRACT

**Objective:** In this study, we aimed to examine the effect of ketamine on chronic unpredictable mild stress (CUMS) model and microglial [Iba-1(+)] and astrocytes [GFAP(+)] immunoreactivity in the same model as markers of neuroinflammation.

**Methods:** Male Wistar Albino rats were divided into groups such as Control (saline), CUMS, CUMS+Acute Ketamine (10 mg/kg), CUMS+Chronic Ketamine (10 mg/kg) groups (n=10 in each). In CUMS model, various stressors were applied for 40 days. Ketamine administered either on 3rd week, once a week for 3 weeks or at the end of 6th week as single dose. At the end of the experiment, sucrose preference and forced swimming tests were performed. Then brains were removed with paraformaldehyde perfusion for GFAP and Iba-1 immunohistochemically in hippocampus. One-way analysis of variance and Tukey's test were used for statistical analyses.

**Results:** Sucrose preference was reduced in CUMS group compared to the control group. Chronic intermittent ketamine treated groups demonstrated significantly higher sucrose preference than CUMS group. The time of immobility in forced swim test was significantly reduced in chronically ketamine treated group compared to the CUMS group. In immunohistochemical experiments Iba-1 and GFAP were overexpressed in CUMS group and ketamine significantly reduced the overexpression of both in GFAP and Iba-1.

**Conclusions:** The results of the present study showed that ketamine had an antidepressant-like activity in chronic stress model of depression. At least a part of its antidepressant effect might be through modulating microglial and astrocyte activation as a reflection of neuroinflammation.

### KEYWORDS

Antidepressant; CUMS; depression; ketamine; neuroinflammation

Abstract:0274

## Harmane: A Beta Carboline, Ameliorates Depression Associated Symptoms by Using Chronic Unpredictable Mild Stress Model in Rats

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*This research was supported by Marmara University (SAG-C-YLP-110915-0415).*

### ABSTRACT

**Objective:** Harmane is a beta-carboline and binds to imidazoline receptors. In our previous study its antidepressant-like effect has been shown when administered acutely. In this study, we aimed to examine the effect of harmane on chronic unpredictable mild stress (CUMS) model of depression in rats.

**Methods:** Male Wistar Albino rats were divided into groups such as Control (saline), CUMS, CUMS+Imipramine (20 mg/kg), CUMS+Harmane 5 (5 mg/kg), CUMS+Harmane 10 (10 mg/kg) groups (n=10 in each). In CUMS model, various stressors (such as cage tilting for 24 h, wet bedding for 24 h, swimming in cold water for 5 min, swimming in hot water for 5 min, pairing with another stressed animal for 48 h, level shaking for 10 min, nip tail for 1 min, and inversion of the light/dark cycle for 24 h) were applied for 40 days. On 20th day, harmane treatment was started for 20 days. At the end of the experiment, in order to assess anhedonia and despair-like state of the animals, sucrose preference and forced swimming tests were performed. One-way analysis of variance and Tukey's test were used for statistical analyses.

### KEYWORDS

Beta-carboline; depression; harmane; imidazoline



**Results:** The time of immobility in forced swim test was significantly reduced in CUMS +Imipramine, CUMS+Harmane 5 and CUMS+Harmane 10 groups compared to the CUMS group. Sucrose preference was significantly reduced in CUMS group compared to the control group while Imipramine, CUMS+Harmane 5 and CUMS+Harmane 10 groups demonstrated significantly higher sucrose preference than the CUMS group.

**Conclusions:** The data obtained from behavioral assays indicated that chronic administration of harmane had an antidepressant-like activity in chronic stress model of depression. Chronic treatment with harmane reversed the CUMS induced behavioral alterations. This study suggested that harmane needed further attention with respect to molecular mechanisms that could provide a better therapeutic strategy against depression.

Abstract:0327

## Identification of a Novel Metabolite Originating from AM-630, a Potent and Selective Inverse Agonist for the Cannabinoid Receptor CB2

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### ABSTRACT

**Objective:** As a hot topic in Turkey, recent findings revealed that AM-630 was one of the active components of the well-known street drug “Bonzai”. To the best of our knowledge, studies on the metabolites of AM-630 were limited to in vitro experiments only. Therefore, the aim of this study was to screen in vivo metabolites of AM-630 via a non-targeted analysis, and to verify the validity of results with those of previously published in vitro findings.

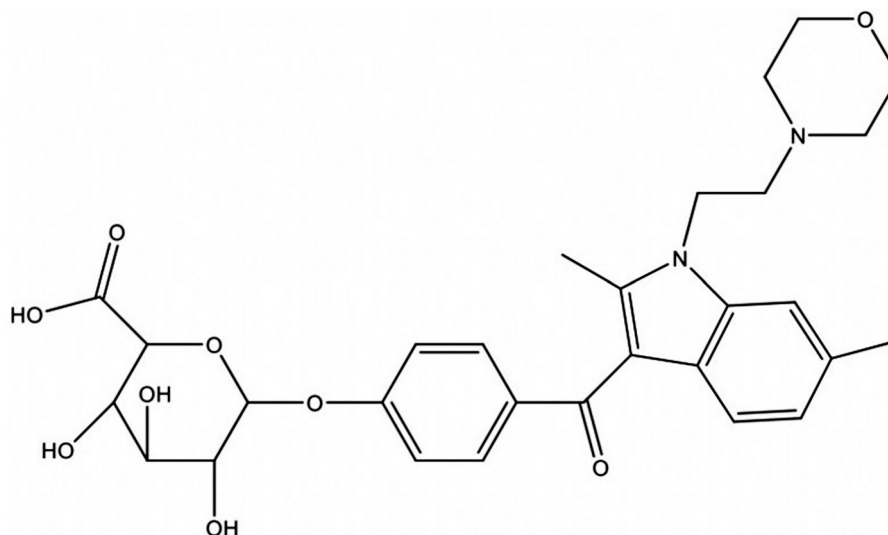
**Methods:** Female Wistar rats of the same age (n=6, ~200–250 g) were used in the experiments. AM-630 was administered via i.p. route by a single injection at the dose of 5 mg/kg. Consequently, urine samples were collected at previously determined time-points within a 24-hours period, and subjected to analysis by using a liquid chromatography mass spectrometry-ion trap-time of flight (LCMS-IT-TOF) instrument. After a detailed screening and evaluation of results, possible molecular masses of the compounds were calculated and their chemical structures were identified. Structural properties and novelties of all the compounds were checked via SciFinder Database searches.

**Results:** As a result of analyses, a novel in vivo metabolite of AM-630 was identified for the first time. The novel compound was a glucuronide metabolite of AM-630, with a chemical name of O-desmethyl-AM630-O-glucuronide. The other metabolites which were determined by using LCMS-IT-TOF were having the same structure with the previously reported ones.

**Conclusions:** Chemical, analytical, and pharmacological evaluation of experimental data revealed that although in vitro metabolism studies gave highly accurate results for prediction of possible metabolism pathways and metabolites, in vivo verification of the results is crucial to reveal the real-time reflection of non-living based experiments. In sum, further clinical studies with the contribution of high-end instrumentation are recommended for better understanding and evaluation of the importance of the novel metabolite, O-desmethyl-AM630-O-glucuronide.

### KEYWORDS

AM-630; cannabinoid receptor agonist; novel metabolites; high resolution mass spectrometry



**Figure 1.** Structure of the novel metabolite of AM-630: O-desmethyl-AM630-O-glucuronide.

Abstract:0406

## The Histamine H3 Receptor Antagonist DL77 Ameliorates Scopolamine- and Dizocilpine-Induced Memory Deficits in Male Adult Rats

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### ABSTRACT

**Objective:** Earlier studies have projected a potential association between histamine H3 receptors (H3R) signaling and procognitive effects in experimental animal models of Alzheimer's disease (AD) and associated dementias. The non-imidazole H3R antagonist DL77 displays excellent selectivity profile and high in-vivo potency as well as in-vitro antagonist affinity with ED50 of  $2.1 \pm 0.2$  mg/kg and  $8.4 \pm 1.3$  [nM], respectively.

**Methods:** In the current study, the effects of DL77 (2.5, 5, and 10 mg/kg, i.p.) on memory deficits induced by the muscarinic cholinergic antagonist scopolamine (SCO) and the non-competitive N-methyl-D-aspartate (NMDA) antagonist dizocilpine (DIZ) were examined in a step-through type passive avoidance paradigm in adult male rats applying donepezil (DOZ) and pitolisant (PIT) as reference drugs.

**Results:** The results observed show that acute systemic administration of DL77 significantly ameliorated the SCO (2 mg/kg, i.p.)- and DIZ (0.1 mg/kg, i.p.)-induced amnesic effects. Moreover, the ameliorating activity of DL77 (5 mg/kg, i.p.) in SCO- and DIZ-induced amnesia was partly reversed when rats were pretreated with the centrally-acting H2R antagonist zolantidine (ZOL, 10 mg/kg, i.p.), but not with the CNS penetrant H1R antagonist pyrilamine (PYR, 10 mg/kg, i.p.). Furthermore, ameliorative effect of DL77 (5 mg/kg, i.p.) in DIZ-induced amnesia was strongly reversed when rats were pretreated with a combination of ZOL (10 mg/kg, i.p.) and SCO (1.0 mg/kg, i.p.), indicating that these memory enhancing effects were, in addition to other neural circuits, observed through histaminergic as well as muscarinic cholinergic neurotransmission.

**Conclusions:** These results demonstrated that the ameliorative effects of DL77 in two in-vivo memory models and provided evidence for the potential of H3Rs for the treatment of degenerative disorders related to impaired memory function.

### KEYWORDS

Histamine H3 receptor; learning; memory; passive avoidance paradigm; pyrilamine; zolantidine; DL77,

Abstract:0424

## The Use of Once-Monthly Paliperidone Palmitate and Twice-Monthly Risperidone Long Acting Injectable in Hospitalized Patients in a University Hospital

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### ABSTRACT

**Objective:** Non-adherence to medication is a major problem for patients with schizophrenia that can lead to frequent relapses, prolonged hospitalization, and further clinical and social inadequacy. Long-acting injectable (LAI) antipsychotic therapies, such as once-monthly paliperidone palmitate and twice-monthly risperidone may reduce relapse-related healthcare resource utilization. Abant İzzet Baysal University, İzzet Baysal Bolu Mental Health Research and Training Hospital is a regional psychiatric hospital which has 120 psychiatric beds (3 closed male clinics, 2 closed female clinics and 1 consultation liaison/ psychosomatic psychiatric clinic with a community mental health center). In this study, we aimed to determine the rate of male/ female hospitalization duration, age and other variables in patients who were treated with once-monthly paliperidone palmitate and twice-monthly risperidone LAI.

**Methods:** Inpatients who were hospitalized between 2015 and 2017 were included into the retrospective study. We used student t test for analyzing continuous data (for age and hospitalization duration, etc.) and chi-square test (for gender).

**Results:** Totally there were 2,560 hospitalized patients between 2015 and 2017, 568 patients [32.9% female (n=187); 67.1% male (n=381)] used paliperidone LAI or risperidone LAI, 19% of them (n=108) used paliperidone and 81% (n=460) used risperidone. Paliperidone LAI was used in 52 female and 56 male patients and Risperidone LAI was used in 135 female and 381 male patients. The mean duration of hospitalization was 44.09 days.

**Conclusions:** The reason that the number of females included in the study was less than the number of males was thought to be due to the fact that females were admitted to the hospital later than the onset of the illness. This finding might reflect the fact that females have more barrier to access psychiatric treatment. It has been concluded that paliperidone LAI, once a month, is more preferable to female patients since it is more advantageous in terms of treatment compliance.

### KEYWORDS

Once-monthly paliperidone long acting injection; twice-monthly risperidone long acting injection; hospitalization duration; non-adherence

**Table 1.** Choice of medication by gender.

Drug	Female	Male	Total
Xeplion	52	56	108
Consta	135	325	460
Total	187	381	568

**Table 2.** Hospitalized patient/ the rate of patients with the use of long acting injection.

Drug	Frequency	Percentage
Xeplion	108	19.0
Consta	460	81
Total	568	100

**Table 3.** Long acting injection, age, hospitalization duration group statistics.

	Drug	n	Mean	SD	SEM
Age	Xeplion	108	40.97	11.45	1.101
	Consta	460	40.99	12.16	0.567
Hospitalization (day)	Xeplion	108	40.46	30.15	2.901
	Consta	460	44.95	42.81	1.996

SD: Standard deviation

SEM: Standard error of mean

Abstract:0249

## Normative Data and Factorial Structure of the Turkish version of the Borderline Evaluation of Severity Over Time (Turkish BEST)

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### ABSTRACT

**Objective:** Borderline Personality Disorder is a psychiatric condition, which is characterized by unstable interpersonal relationships, difficulties in regulating emotions, fear of abandonment, feeling of emptiness, chronic dysphoria and depression, and impulsivity and increased risk-taking behaviors. Several specific measures of Borderline Personality were adapted to a multidimensional approach to measure borderline personality. In this study, we aimed to examine the validity, reliability, and factor structure of the Borderline Evaluation of Severity Over Time scale (Pfhol et al., 2009) in a Turkish sample.

**Methods:** Participants were 306 (201 female, 105 male) college students at the Hasan Kalyoncu University in Gaziantep, Turkey. The study protocol was approved by the University's Ethics Committee. Sociodemographic information of the participants was collected and Turkish version of the Borderline Evaluation of Severity over Time (BEST), the Turkish version of the Borderline Personality Questionnaire (BPQ), Beck Depression Inventory (BDI), Personality Belief Questionnaire (PBQ), and State-Trait Anxiety scales were administered. All statistical analyses were performed by using SPSS version 23 for Windows.

**Results:** The Cronbach's alpha coefficients for the Thoughts and Feelings, Negative Behaviors, and Positive Behaviors subscales were 0.80, 0.65, and 0.67, respectively. For the whole scale, the Cronbach's alpha coefficient was 0.75. The test-retest correlation coefficients for Thoughts and Feelings, Negative Behaviors and Positive Behaviors were 0.61, 0.50, and 0.51, respectively (Table 1). A positive and statistically significant correlation was found between the Turkish BEST and BPQ ( $r=0.337$ ,  $p<0.01$ ), BDI ( $r=0.460$ ,  $p<0.01$ ), PBQ ( $r=0.337$ ,  $p<0.01$ ), State Anxiety ( $r=0.351$ ,  $p<0.01$ ) and Trait Anxiety ( $r=0.387$ ,  $p<0.01$ ) scales (Table 2). A two-factor solution that accounted for 87.81% of the variance observed. The first two subscales of the BEST formed Factor 1 and the last subscale formed Factor 2.

**Conclusions:** Our results suggested that Turkish BEST was a valid and reliable tool with a robust factorial structure to use in clinical population in Turkey.

### KEYWORDS

Borderline Evaluation of Severity over Time; reliability; validity; factor structure  
General

**Table 1.** Mean and SD, Cronbach's alpha values, and test-retest values.

	M	SD	$\alpha$	$r_{tt}$
BEST	25.7	8.9	0.75	0.666**
Thoughts and Feelings	15.7	5.9	0.80	0.606**
Negative Behaviors	6.0	2.6	0.65	0.509**
Positive Behaviors	11.1	3.0	0.67	0.503**
BPQ	22.9	10.8	0.89	
STAI-State Anxiety	36.6	10.4	0.91	
STAI-Trait Anxiety	42.5	8.6	0.84	
BDI	10.0	8.6	0.89	
PBQ	87.7	34.7	0.94	

rtt: test-retest correlation coefficient

\*\* $p < 0.01$

**Table 2.** Correlations between the Turkish BEST and other scales.

Scales	BEST	Thoughts and Feelings	Negative Behaviors	Positive Behaviors
BPQ	0.261**	0.342**	0.261**	NS
Impulsivity	0.330**	0.120*	0.156**	NS
Affective Instability	0.256**	0.241**	0.156**	NS
Abandonment	0.350**	0.286**	0.202**	NS
Relationships	0.157**	0.186**	NS	NS
Self-Image	0.255**	0.165**	0.124*	NS
Suicide-Self Mutilation	0.317**	0.232**	0.208**	NS
Emptiness	0.155**	0.234**	0.201**	-0.150**
Intense Anger	0.244**	0.231**	0.182**	NS
Quasi-Psychotic-States	0.299**	0.218**	0.151**	NS
STAI-State Anxiety	0.351**	0.315**	0.195**	-0.248**
STAI-Trait Anxiety	0.357**	0.404**	0.180**	-0.193**
BDI	0.460**	0.449**	0.253**	0.257**
PBQ	0.337**	0.346**	0.257**	NS
Avoidant	0.330**	0.349**	0.214**	NS
Dependent	0.256**	0.240**	0.218**	NS
Passive Aggressive	0.350**	0.332**	0.263**	-0.152**
Obsessive Compulsive	0.157**	0.202**	0.156**	NS
Antisocial	0.255**	0.262**	0.194**	NS
Narcissistic	0.317**	0.282**	0.257**	-0.158**
Histrionic	0.155**	0.141**	0.142*	NS
Schizoid	0.244**	0.297**	0.173**	NS
Paranoid	0.299**	0.317**	0.176**	NS
Borderline	0.261**	0.265**	0.204**	NS

\*Correlation is significant at the 0.05 level (2-tailed)

\*\*Correlation is significant at the 0.01 level (2-tailed)

NS: Not Significant

Abstract:0252

## Normative Data and Factorial Structure of the Turkish version of the Borderline Personality Questionnaire (Turkish BPQ)

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### ABSTRACT

**Objective:** Borderline personality disorder is a psychiatric pattern that begins with early adulthood and characterized by impulsivity and instability in self-image, interpersonal relationships, and affection. Borderline personality disorder is seen by 2% in the general population, 10% in the emergency service, and 20% in the inpatient. Within personality disorders, borderline personality disorders are seen at a rate of 30–60%. Specific measures of Borderline Personality were adapted to a multidimensional approach to measure borderline personality. In this study, we aimed to examine the validity, reliability, and factor structure of the Borderline Personality Questionnaire in a Turkish sample.

**Methods:** Participants were 306 (201 female, 105 male) college students at the Hasan Kalyoncu University in Gaziantep, Turkey. The study protocol was approved by the Ethics Committee of Hasan Kalyoncu University. Sociodemographic information of the participants was collected and Turkish version of the Borderline Personality Questionnaire (BPQ), Borderline Evaluation of Severity over Time (BEST), Beck Depression Inventory (BDI), Personality Belief Questionnaire (PBQ), and State-Trait Anxiety scales were administered. All statistical analyses were performed by using SPSS version 23 for Windows.

**Results:** The Cronbach alpha coefficient for the Turkish BPQ was found as 0.89. The test-retest correlation coefficient for Impulsivity, Affective Instability, Abandonment, Relationships, Self-Image, Suicide, Self-Mutilation, Emptiness, Intense Anger and Quasi Psychotic States were 0.50, 0.77, 0.40, 0.68, 0.72, 0.48, 0.73, 0.74, and 0.62, respectively. A positive and statistically significant correlation was found between the Turkish BPQ and BEST ( $r=0.337$ ,  $p<0.01$ ), BDI ( $r=0.375$ ,  $p<0.01$ ), PBQ ( $r=0.322$ ,  $p<0.01$ ), State Anxiety ( $r=0.299$ ,  $p<0.01$ ) and Trait Anxiety ( $r=0.306$ ,  $p<0.01$ ) scales. Principal axis factor analyses with Oblimin rotations were performed and two-factor structure was observed.

**Conclusions:** Our results suggested that Turkish BPQ was a valid and reliable tool with a robust factorial structure for use in clinical population in Turkey.

### KEYWORDS

Borderline Personality Questionnaire; reliability; validity; factor structure

**Table 1.** BPQ Scales and subscales, Mean and SD, and Cronbach's alpha values, and test-retest correlations.

	Turkish (n=306)			
	M	SD	$\alpha$	rtt
Impulsivity	1.4	1.4	0.53	0.504**
Affective Instability	4	5.2	0.68	0.774**
Abandonment	2.5	1.6	0.46	0.398**
Relationships	2.9	2	0.65	0.683**
Self Image	1.4	1.6	0.65	0.718**
Suicide/ Self-Mutilation	0.6	1.1	0.68	0.484**
Emptiness	3	2.1	0.63	0.734**
Intense Anger	4	2.8	0.81	0.739**
Quasi-Psychotic States	2.5	1.8	0.65	0.623**
Total BPQ	22.8	10.7	0.89	0.672**

rtt: test-retest correlation coefficient

\*\*p&lt; 0.01

**Table 2.** The first unrotated factor (PC1) and pattern matrix following principal components analysis and promax rotation of two factors (F1 and F2), for the Turkish, United States, English and Australian Samples.

BPQ Sub-scale	Turkish sample			U.S sample			Australian sample			English Sample		
	PC1	F1	F2	PC1	F1	F2	PC1	F1	F2	PC1	F1	F2
Impulsivity	0.47	---	0.73	0.54	---	0.71	---	---	0.94	---	---	0.83
Affective Instability	0.71	0.67	0.52	0.81	0.51	0.43	0.80	0.79	---	0.77	0.67	---
Abandonment	0.70	0.67	0.50	0.73	0.75	---	0.73	0.84	---	0.73	0.76	---
Relationships	0.68	0.65	0.49	0.78	0.74	---	0.76	0.73	---	0.75	0.71	---
Self Image	0.61	0.73	---	0.58	0.79	---	0.79	0.82	---	0.73	0.87	---
Suicide/Self-Mutilation	0.60	0.54	0.49	0.40	---	0.77	0.59	0.37	0.51	0.53	0.37	0.31
Emptiness	0.74	0.83	---	0.76	0.86	---	0.83	0.86	---	0.84	0.88	---
Intense Anger	0.55	0.51	0.44	0.55	---	0.71	0.68	0.57	---	0.56	---	0.62
Quasi-Psychotic States	0.48	0.30	0.70	0.68	0.64	---	0.57	0.46	---	0.37	---	0.52
% Variance		39.40	10.63		43.62	12.34		46.95			41.05	13.23

Note: Scores below 0.30 were replaced with blanks

Abstract:0284

## Normative Data and Factorial Structure of the Turkish version of the Temperament and Character Inventory-Revised (Turkish TCI-R)

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### ABSTRACT

**Objective:** Cloninger proposed a revised version of the Temperament and Character Inventory (TCI-R) in 1999, which uses a five-point-Likert format to provide more variability and includes subscales for persistence to improve its scale construct. In this study, we aimed to examine the reliability, validity, and factor structure of the TCI-R in a Turkish sample.

**Methods:** Participants were 1026 (786 female, 240 male) college students at various universities in Turkey. The study protocol was approved by the local Ethics Committee. Sociodemographic information of the participants was collected and the TCI-R, Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and Personality Belief Questionnaire (PBQ) were administered. All statistical analyses were performed by using SPSS version 23 for Windows.

**Results:** The internal consistency was satisfactory for all dimensions (Cronbach alpha coefficients above 0.7). The highest Cronbach alpha was found for Persistence Dimension (0.92) and the lowest Cronbach alpha was found for Novelty Seeking Dimension (0.73) and test-retest correlation coefficients for all dimensions were relatively high and statistically significant (Table 1). TCI-R temperament and character scales were found significantly correlated with the BDI, the BAI, and the PBQ total scores (Table 2). A principal-components analysis with Promax rotation yielded 4 factors with an Eigenvalue greater than one, representing 63% of the total variance for temperament dimension. A principal-components analysis with Promax rotation yielded 3 factors with an Eigenvalue greater than one, representing 56.14% of the total variance for character dimension. The addition of 4 new subscales to the original scale for Persistence has produced a very reliable dimension in the TCI-R with the loadings ranging from 0.816 to 0.856.

### KEYWORDS

Temperament and Character Inventory-Revised; reliability; validity; factor structure



**Conclusions:** Our preliminary findings suggested that Turkish TCI-R was a valid and reliable tool with a robust factorial structure for further use in the assessing of personality psychopathology in clinical populations in Turkey.

**Table 1.** TCI-R Scale Means, Standard Deviations, Cronbach alpha and test-retest correlation.

	Total (n=1026)		$\alpha$	Women (n=786)		Men (n=240)		F(df= 1024)	p	$r_{tt}$ (n=84)
	M	SD		M	SD	M	SD			
Novelty seeking (NS)	104.0	11.3	0.73	103.8	11.3	104.8	11.3	0.09	0.21	0.83**
Harm avoidance (HA)	97.3	16.2	0.89	98.5	16.1	93.7	16.1	0.97	<0.001	0.91**
Reward dependence (RD)	98.8	12.3	0.80	99.5	12.8	96.5	10.1	15.28	<0.001	0.84**
Persistence (PS)	120.8	17.6	0.92	120.4	17.7	122.0	17.3	0.64	0.20	0.87**
Self-directedness (SD)	132.3	15.3	0.84	132.5	15.2	131.6	15.6	0.57	0.39	0.87**
Cooperativeness (C)	127.6	14.8	0.86	129.0	14.5	123.0	15.0	1.17	<0.001	0.84**
Self-transcendence (ST)	85.9	11.2	0.80	86.4	11.1	84.0	11.4	0.11	<0.005	0.79**

rtt: test-retest correlation coefficient

\*\*p < 0.01

**Table 2.** Correlations between the Turkish TCI-R, and other scales.

Scales	NS	HA	RD	PS	SD	C	ST
BDI	0.116**	0.261**	-0.044	-0.140**	-0.410**	-0.181**	0.079*
BAI	0.068*	0.237**	-0.027	-0.083**	-0.340**	-0.176**	0.143**
PBQ	0.015	0.133**	-0.220**	0.041	-0.379**	-0.439**	0.156**
Avoidant	-0.065*	0.273**	-0.184**	-0.069*	-0.380**	-0.360**	0.130**
Dependent	0.030	0.245**	0.004	-0.135**	-0.459**	-0.291**	0.066*
Passive Aggressive	0.128**	0.042	-0.188**	0.022	-0.258**	-0.331**	0.141**
Obsessive Compulsive	-0.114**	0.047	-0.157**	0.265**	-0.197**	-0.300**	0.186**
Antisocial	0.056	-0.019	-0.174**	0.126**	-0.281**	-0.404**	0.170**
Narcissistic	0.096**	-0.025	-0.188**	0.100**	-0.251**	-0.449**	0.134**
Histrionic	0.103**	0.063*	-0.039	-0.003	-0.385**	-0.348**	0.082**
Schizoid	-0.068*	0.026	-0.447**	0.085**	-0.108**	-0.291**	0.130**
Paranoid	-0.034	0.146**	-0.224**	0.065*	-0.299**	-0.385**	0.153**
Borderline	-0.017	0.337**	-0.159**	-0.174**	-0.485**	-0.378**	0.051

\*Correlation is significant at the 0.05 level (2-tailed)

\*\*Correlation is significant at the 0.01 level (2-tailed)

Abstract:0021

## Temperament and Character Dimensions of Personality in Patients with Chronic Pain Disorder

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### ABSTRACT

**Objective:** The etiology of chronic pain is still largely unknown. It is known that a complex relationship is present between chronic pain and personality. In this study, we aimed to compare the clinical features and personality traits of patients with Chronic Pain Disorder (CPD) and healthy controls. We hypothesized that Harm Avoidance scores would be higher and predictive of CPD compared to the healthy controls.

**Methods:** This study sample was comprised of 60 CPD outpatients (53 women, 7 men) who presented to the Bagcilar Training and Research Hospital's Outpatient Psychiatry Clinic with chronic pain for at least 3 months and were not under any medication treatments. The control group comprised of 60 healthy controls (49 women, 11 men). Both study groups had no history of any psychotic disorders and were free of any medical and neurological illnesses. Semi-structured sociodemographic data form, Visual Analog Scale (VAS), Temperament and Character Inventory (TCI), Beck Depression Inventory (BDI), and the Beck

### KEYWORDS

Chronic Pain Disorder; temperament and character inventory; personality; harm avoidance

Anxiety Inventory (BAI) were administered to the participants. All statistical analyses were performed using SPSS for Windows, Version 23.0.

**Results:** Impulsiveness subscale of Novelty Seeking; Harm Avoidance and its subscales of Anticipatory worry, Fear of uncertainty, Shyness with strangers, and Fatigability and asthenia scores were significantly higher in CPD patients compared to the control group. Harm Avoidance and its subscales of Anticipatory worry, Fear of uncertainty, Shyness with strangers, and Fatigability and asthenia scores were significantly positively correlated with the BDI, BAI, and VAS scores. When VAS scores was entered as the dependent variable and age and gender were controlled in regression analysis, Harm Avoidance was significantly predictive of VAS scores.

**Conclusions:** Temperament and character traits of the CPD patients were significantly different from the healthy control subjects. HA scores were higher and predictive of CPD compared to healthy controls.

Abstract:0487

## Normative Data and Factorial Structure of the Turkish Version of the Empathy Quotient (Turkish EQ)

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### ABSTRACT

**Objective:** Empathy is an essential ability that allows us to tune into how others are feeling or thinking. Empathy not only promotes prosocial behavior, but also augments positive affect and resilience, which in turn fosters better coping with stressful situations. In this study, we aimed to examine the validity, reliability, and factor structure of the Empathy Quotient (EQ) in a Turkish sample.

**Methods:** Participants were 436 mostly college students and civil servants (195 female, 241 male) who were living in Istanbul, Turkey. The study protocol was approved by the Ethics Committee of Gaziosmanpasa University. Sociodemographic information of the participants was collected and the Turkish version of the Empathy Quotient (EQ), Marlowe-Crowne Social Desirability Scale (MCSDS) 33-item full version and MCSDS 13-item shorter versions were administered. All statistical analyses were performed by using SPSS version 23 for Windows.

**Results:** An independent samples t-test was conducted to compare EQ scores in terms of gender. The results revealed that there was a statistically significant difference between male and female participants regarding the EQ scores [ $t(434)=3.286$ ,  $p=0.001$ ]. EQ scores were significantly higher in female participants ( $\bar{X}_{\text{Female}}=46.4462$ ,  $SD_{\text{Female}}=0.62421$ ) compared to the male participants ( $\bar{X}_{\text{Male}}=43.6763$ ,  $SD_{\text{Male}}=0.56541$ ). The Cronbach's alpha coefficients for the scale was 0.68. A positive and statistically significant correlation was found between the Turkish EQ and MCSDS Full version ( $r=0.287$ ,  $p<0.01$ ) and short form of MCSDS ( $r=0.119$ ,  $p<0.05$ ). A three factor solution that accounted for 25.27% of the variance observed.

**Conclusions:** Our results suggested that Turkish EQ was a valid and reliable tool with a robust factorial structure to use in clinical population in Turkey. A better knowledge of empathy will have important implications for the examination and understanding of certain psychiatric disorders and may also provide important clues about the relevant brain circuitry underlying empathy.

### KEYWORDS

Empathy Quotient (EQ); reliability; validity; factor structure

Abstract:0036

## Reliability, Validity, and Factorial Structure of the Turkish Version of the Weight Self Stigma Questionnaire

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**ABSTRACT**

**Objective:** The Weight Self-Stigma Questionnaire (WSSQ) is a comprehensive instrument for the assessment of weight self-stigma in obesity and has been validated in several languages. The purpose of this study was to examine the psychometric properties and validate the Turkish version of the WSSQ in a sample of severely obese patients in Turkey.

**Methods:** A cross-cultural adaptation of the WSSQ into Turkish was carried out, strictly according to recommended methods. The questionnaires including the Sociodemographic Data Form, the Weight Self-stigma Questionnaire (WSSQ), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Eating Disorder Examination-Questionnaire (EDEQ), Rosenberg Self-esteem Scale (RSES), Dutch Eating Behavior Questionnaire Emotional Eating Subscale (DEBQ-E), and Impact of Weight on Quality of Life Questionnaire (IWQOL) were completed by 120 consecutive severely obese patients (96 female, 24 male) in the outpatient clinics of the Department of Bariatric and Metabolic Surgery in a university setting in Turkey between May–September 2016. All statistical analyses were performed by using SPSS version 23 for Windows.

**Results:** The Cronbach's  $\alpha$  (internal reliability) for the two subscale of the WSSQ -self-devaluation and enacted stigma, and for the whole questionnaire (WSSQ Total) were 0.48, 0.81, and 0.72, respectively. Although self-devaluation subscale has lower internal consistency, enacted stigma subscale and total WSSQ has a good internal consistency. Construct validity also appears adequate as the WSSQ correlates with other measures largely in the manner we expected. Principal component factor analyses revealed a two-factor structure with an almost identical factor structure to that reported in the original study. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was found to be 0.80 and Barlett's test of Sphericity  $\chi^2$  was found as 384.100 ( $p < 0.01$ ).

**Conclusions:** Our results suggested that Turkish WSSQ was a valid and reliable tool with a robust factorial structure to use for measuring weight related self-stigma in clinical population in Turkey.

**KEYWORDS**

Weight Self-Stigma Questionnaire; reliability; validity; factorial structure

Abstract:0034

## Normative Data and Factorial Structure of the Turkish Version of the Bradford Somatic Inventory (Turkish BSI-44)

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**ABSTRACT**

**Objective:** Mumford and colleagues developed the Bradford Somatic Symptoms Inventory (BSI) that examines somatic symptoms of anxiety and depression, which has transcultural applications. The objective of the current study was to establish the psychometric properties and factorial validity of the Turkish version of the BSI-44 in a healthy Turkish population and obtain normative data.

**Methods:** The study was conducted at the Marmara University School of Medicine with a sample of 201 healthy students (18–30 years old). In order to estimate test-retest reliability of the Turkish BSI, 53 participants from the original sample were asked to fill in the questionnaire one month after the initial testing. Sociodemographic data of the participants were collected and the Turkish BSI, Somatosensory Amplification Scale (SSAS), Whiteley Index (WI-7), and the somatization subscale of the SCL-90-R scales were administered. All statistical analyses were performed by using SPSS version 23 for Windows.

**Results:** The mean age of the study participants was  $22.9 \pm 1.95$  years; 57.7% ( $n=116$ ) of participants were female; 42.3% ( $n=85$ ) were male. BSI scores were normally distributed. When scores of BSI were categorized as high ( $>40$ ), middle (26–40), and low (0–25); no statistically significant differences were found between males and females. The Cronbach's alpha coefficient for the scale was 0.90 and the test-retest correlation coefficient was found to be 0.75. A positive and statistically significant correlation was found between the Turkish BSI and the WI ( $r=0.38$ ,  $p < 0.01$ ), the SAS ( $r=0.48$ ,  $p < 0.01$ ) and the SCL-90R ( $r=0.79$ ,  $p < 0.01$ ) scales. A principal-components analysis was performed on the BSI responses of the participants, which yielded 14 factors with an Eigenvalue greater than one, representing 65.2% of the total variance.

**Conclusions:** Our results suggested that Turkish BSI was a valid and reliable tool with a robust factorial structure to use in clinical populations in Turkey.

**KEYWORDS**

Somatization; Turkish BSI-44; reliability; validity; factor structure

Abstract:0235

## Sociodemographic and Clinical Characteristics of Inpatient in Consultation-Liaison Unit in a University Hospital

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### ABSTRACT

**Objective:** In this study, we aimed to evaluate the sociodemographic and clinical characteristics of the inpatients in the CLP Unit of our hospital.

**Methods:** The data was extracted by retrospectively reviewing from the hospital database and inpatient charts and transferred to a structured sociodemographic and clinical form between August 2015 to December 2016.

**Results:** The mean age of 37 patients (15 female, (40.5%) and 22 male (59.5%) was  $44.6 \pm 15.81$ . The mean duration of hospitalization was  $21.2 \pm 15.52$  days, and the mean number of hospitalizations was  $1.89 \pm 1.36$ . 51.5% were married, 35.1% were single, 8.1% were widowed or divorced. When the education levels are examined, it was found that 75.7% of them did not complete elementary school. 62.2% of the patients were living in urban centers. 89.2% had physical illness. The most common physical disease groups were; neurological (51.4%), and endocrinological diseases (16.2%). According to DSM-5, the most common psychiatric diagnosis groups were schizophrenia spectrum disorders (18.9%), depressive disorders (16.2%) and mental retardation (13.5%), respectively. 37.8% of the patients had psychotic symptoms. 10.8% shared suicidal ideation. 48.6% of patients had medical treatment as monotherapy and 43.2% of them as combined treatment, and 8.1% has been applied Electroconvulsive therapy. It was found that 35.1% of the patients had regular monthly follow-ups.

**Conclusions:** In our study, we found that neurological and endocrinological diseases were the most common comorbid diagnoses in the patients hospitalized in the CLP unit. This finding emphasized the importance and necessity of psychiatry to work in collaboration with other departments. Additionally, the presence of a considerable amount of suicidal ideation of 10.8% in patients with CLP indicated that suicidal ideation should be questioned in every patient. In cooperation with other clinics, patients need to be assessed psychologically through a holistic approach.

### KEYWORDS

Consultation-Liaison Psychiatry; sociodemographic data; clinical features; co-diagnosis

Abstract:0262

## Alexithymia, Self-Esteem, and Attachment Styles of Adolescents with Migraine and Tension Type Headaches

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### ABSTRACT

**Objective:** Migraine and tension type headache are frequently seen somatic issues in childhood. Prevalence of alexithymia has been reported to be higher in patients with chronic pain. Alexithymia is also associated with parents' attitudes towards their children. Parents who reject the emotional self-expression and playfulness of their children may lead to development of alexithymia in their children. Alexithymia is also thought to be related with lack of self-confidence and esteem. In this study, we aimed to evaluate alexithymia, self-esteem, and attachment style of patients diagnosed with migraine and tension type headaches.

**Methods:** Subjects admitted to outpatient clinic of child neurology department with complaint of headache and diagnosed by migraine and tension type headaches according to the "International Classification of Headache Disorders" criteria were included to this study. Adolescent (13–18 years) consented to participate in this study completed the Toronto Alexithymia Scale, Rosenberg Self-Esteem Scale, Short Form of Inventory of Parent and Peer Attachment. The alpha level of 0.05 was set up to indicate statistical significance.

**Results:** Migraine group consisted of 19 female and 5 male; tension type headache group consisted of 15 female and 5 male. There were no differences between groups in terms of

### KEYWORDS

Alexithymia; self-esteem; attachment; adolescent; migraine; headache

age, gender, and mean scale scores (Table 1). Mothers attachment scores were positively correlated with fathers attachment scores and Rosenberg Self-Esteem Scale scores, and negatively correlated with Toronto Alexithymia Scale total scores. Toronto Alexithymia Scale total scores were negatively correlated with Rosenberg Self-Esteem Scale scores. Other correlations were showed in Table 2.

**Conclusions:** Level of self-esteem and alexithymia, and attachment security were not statistically significantly different between the adolescents with migraine and tension type headaches. However, mother and father attachment security levels of adolescents were correlated with decreased levels of alexithymia, consistent with the literature. Further studies with larger samples are needed to generalize these findings in patients with headaches.

**Table 1.** Demographics and scale scores of headache groups.

	Migraine (n=24)	Tension type (n=20)	Total (n=44)		
	n (%)	n (%)	n (%)	$\chi^2$	p
Gender					
Female	19 (79.2)	15 (75.0)	34 (77.3)	0.108	0.743
Male	5 (20.8)	5 (25.0)	10 (22.7)	df=1	
Variables	M (SD)	M (SD)	M (SD)	t	p
Age	14.2 (1.5)	14.2 (1.4)	14.2 (1.5)	0.018	0.986
Inventory of Parent and Peer Attachment					
Mother attachment	62.7 (14.0)	61.7 (17.0)	62.2 (15.2)	0.205	0.839
Father attachment	53.2 (16.4)	56.2 (17.1)	54.5 (16.6)	-0.597	0.553
Toronto Alexithymia Scale					
Difficulty identifying feelings	15.3 (4.7)	17.6 (7.5)	16.3 (6.2)	-1.189	0.241
Difficulty describing feelings	11.7 (3.3)	13.6 (4.5)	12.6 (3.9)	-1.604	0.116
Externally-oriented thinking	21.1 (4.7)	21.0 (3.5)	21.0 (4.2)	0.097	0.923
Alexithymia total score	48.3 (8.0)	51.7 (12.7)	49.8 (10.4)	-1.080	0.286
Rosenberg Self-esteem Scale	19.5 (5.3)	18.9 (5.6)	19.2 (5.4)	0.388	0.700

M: Mean, SD: Standard deviation

**Table 2.** Correlations between the scales.

	Father attachment score	Difficulty identifying feelings	Difficulty describing feelings	Externally-oriented thinking	Alexithymia total score	Rosenberg self- esteem scale
Mother attachment score	0.618**	-0.485**	-0.472**	-0.122	-0.458**	0.492**
Father attachment score		-0.344*	-0.276	0.067	-0.256	0.382*
Difficulty identifying feelings			0.633**	0.163	0.827**	-0.634**
Difficulty describing feelings				0.125	0.792**	-0.606**
Externally-oriented thinking					0.510**	-0.262
Alexithymia total score						-0.712**

\*\**: Correlation is significant at the 0.01 level (2-tailed)*

\**: Correlation is significant at the 0.05 level (2-tailed)*

Abstract:0331

## The Comparison of Rheumatic Patients in Terms of Quality of Life

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**ABSTRACT**

**Objective:** The quality of life is very important especially in chronic diseases, one of the group of patients in which quality of life changes were seen most frequently among the patients presented to the Physical Therapy and Rehabilitation Department. The aim of this study was to compare the quality of life of patients with fibromyalgia, osteoarthritis, and rheumatoid arthritis in the rheumatic diseases group.

**Methods:** The sample of the study was created by adult volunteers who had been admitted to the Department of Physical Therapy and Rehabilitation at the Düzce University between May 2016 and November 2016, for rheumatic disease complaints. After quality control checking of the data, patients who were diagnosed as fibromyalgia (n=59), osteoarthritis (n=165), and rheumatoid arthritis (n=57) were evaluated. Short Form Health Survey version-2.0 (SF-36v2), 12-Item Short Form Health Survey (SF-12), 8-Item Short Form Health (SF-8), the Short-Form 6D (SF-6D)SF-6Dv2, World Health Organization Quality of Life-abbreviated version (WHOQOL-BREF), and the shortened disabilities of the arm, shoulder and hand questionnaire (*QuickDASH*) forms were filled during face-to-face interviews. Covariance analysis was used to compare the quality of life scores of three disease groups by controlling the effect of age, gender, and education level.

**Results:** At least one SF scale was found to be significantly higher in patients with fibromyalgia and osteoarthritis compared to patients with rheumatoid arthritis in terms of Physical and Role function, General health, Vitality, Social function, Emotional role, mean of Mental health subscale score. We also observed that the *QuickDASH* score was higher in the rheumatoid arthritis group. The score of physical health and social relations was higher in the group of osteoarthritis.

**Conclusions:** In terms of quality of life, fibromyalgia and osteoarthritis patients showed similar behavior and rheumatoid arthritis patients had worse quality of life than other two rheumatic disease groups.

**KEYWORDS**

Osteoarthritis; rheumatoid arthritis; fibromyalgia; quality of life; SF-36

Abstract:0332

## The Investigation of Effects of Pregabalin and Duloxetine Treatment According to Personality Characteristics with Fibromyalgia Patients

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**ABSTRACT**

**Objective:** The aim of this study is to examine the effects of pregabalin and duloxetine treatment according to personality characteristics with fibromyalgia syndrome (FMS) patients.

**Methods:** A total of 102 female with FMS who applied to outpatient clinics of the Department of Physical Therapy and Rehabilitation in Duzce University between the dates of October 2013 and December 2014, were grouped according to their personality characteristics. Each personality group was also randomly divided into two groups. One group received 60 mg/day duloxetine and the other group received 300 mg/day pregabalin for 12 weeks. The pain intensity of the patients was evaluated with Visual Analog Scale (VAS), their sleep quality was evaluated with VAS-sleep score, depression was evaluated with Beck Depression Scale (BDS), quality of life was evaluated with Short Form Health Survey (SF-36), and functioning was evaluated with Fibromyalgia Impact Questionnaire (FIQ) before and after treatment.

**Results:** Thirty of the neurotic group received duloxetine, 31 received pregabalin while 20 of the extroverts received duloxetine and 21 received pregabalin. Significant improvements were obtained in the neurotic-duloxetine and extroverted-pregabalin groups in terms of BDS and general health perceptions dimension of SF-36. Significant improvements were observed in all groups in terms of VAS, VAS-Sleep and sensitive points. The increase after treatment in physical functioning, physical role functioning, vitality, mental health and bodily pain in SF-36 was significant in all groups. The increase in emotional role functioning was significantly higher in only neurotic-duloxetine and neurotic-pregabalin groups. The effects of treatments were not found statistically significant on vitality in all groups. The decrease in FIQ scores was significant in extroverted-duloxetine and extroverted-pregabalin groups.

**Conclusions:** Treatment should be initiated with pregabalin in patient with extroverted personality characteristics and with duloxetine in patient with neurotic personality characteristics.

**KEYWORDS**

Fibromyalgia; personality characteristics; pregabalin; duloxetine



Abstract:0350

## The Relationships Between Serum Leptin, Irisin and Disease Activity, Inflammation Indicators in Fibromyalgia Patients

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### ABSTRACT

**Objective:** The purpose of this study is to evaluate levels of serum leptin and irisin in patients with fibromyalgia syndrome (FMS) and also examine if there are any correlations between these parameters and disease activity and markers of inflammation.

**Methods:** Total of 84 volunteers women, including 48 patients with FMS and 36 healthy controls were included into the study. Visual Analog Scale (VAS) and the fibromyalgia impact questionnaire for the assessment of physical function of the patients (FIQ), the 36-Item Short Form Health Survey to assess the quality of life-36 (SF-36) and accompanying Beck Depression Inventory (BDI) to assess depression was used. Blood samples were taken for analysis that leptin, irisin, and inflammatory markers of erythrocyte sedimentation rate (ESR), CRP, hsCRP and neutrophil/ lymphocyte ratio (NLR).

**Results:** Serum leptin levels in patients with FMS were significantly higher when compared with the healthy control group. No relationship was found between leptin and BDS, FIQ, and SF-36 components of patients. Serum irisin levels of patients with FMS had no significant differences compared with healthy control group. The difference between FMS patients and healthy controls in terms of ESR, CRP, hsCRP, NLR were not found significant. There were no significant correlations between inflammatory markers and levels of serum leptin and irisin.

**Conclusions:** Higher serum leptin levels in patients with FMS which were determined, suggesting that leptin may have played a role in the pathogenesis of this disease. There was no relationship between leptin and BDS, FIQ, and SF-36 components, suggesting that leptin was not an indicator disease activity in FMS. Also, no significant differences were found between the FMS patients and healthy controls in serum levels of irisin. Therefore, this study showed that irisin which is a myokine, had no significant role in the pathogenesis of FMS.

### KEYWORDS

Fibromyalgia syndrome; leptin; irisin; inflammation

Abstract:0050

## Clinical Features of Response to Electroconvulsive Therapy Under General Anesthesia in Bipolar Manic and Depressive Episodes and Major Depressive Disorder

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### ABSTRACT

**Objective:** Major depressive disorder (MDD) and bipolar disorder (BD) are common psychiatric disorders. Suicidal ideations or attempts, in case of rejection of food or medicine and accompanied with psychotic features of the disease that requires immediate treatment. Electroconvulsive therapy (ECT) is widely used for the management of severe and refractory depression, however, its utility in bipolar manic and depressive episodes have not been extensively studied. In this study, we aimed to determine the effectiveness of ECT, also response and remission rates of it in MDD, BD depressive and manic episodes.

**Methods:** A total of 56 inpatients, 20 of whom had bipolar manic episode, 16 had bipolar depressive episode and 20 had major depressive disorder were included to in the study. All patients were treated at Konya Research and Training Hospital between April–December 2014. Patients were examined at baseline, after each ECT and at the end of treatment with a variety of clinical ratings that included the Young Mania Rating Scale (YMRS), Montgomery-Asberg Depression Rating Scale (MADRS), Standardized Mini-Mental State Examination (SMMSE) and Clinical Global Impressions Scale (CGI-S).

**Results:** No statistically significant relationships were found in the number of ECT, electrical load required for effective seizure development and duration of central and peripheral seizure. At the

### KEYWORDS

Electroconvulsive therapy, bipolar manic and depressive episodes; major depressive disorder

end of the ECT, global response rate was 85% for BP mania, 75% for BP depression, 95% for MDD. Remission rates were 60% for BP mania, 50% for BP depression, 85% for MDD. There were no significant differences in response and remission rates between the groups. The number of ECT needed for response was  $5.0 \pm 1.4$  for BP mania,  $3.4 \pm 0.7$  for BP depression,  $4.5 \pm 1.3$  for MDD. The number of ECT needed for response was statistically significantly lower in patients with BD depression than the other patients. Response was seen in MDD and BD mania after the third ECT, BD depression after the second ECT. All patients CGI-S, YMRS, MADRS score was significantly decreased after the first ECT. At the end of treatment MADRS and CGI-S scores of MDD patients were significantly lower than BD depression. The number of the ECT needed for remission was  $7.6 \pm 1.7$  for BP mania,  $6.6 \pm 1.7$  for BP depression,  $7.1 \pm 2.4$  for MDD. Remission was seen after the fifth ECT in BD depression and MDD, after the sixth ECT in BD mania. There was no significant difference between the groups in the rate of remission. No statistically significant differences were found between the SMMSE scores of baseline and after the treatment.

**Conclusions:** Treatment efficacy in all patient groups since the first session of the ECT starts. Our data support that ECT may reduce cognitive impairment due to illness. ECT is an effective treatment for BD mania, BD depression and MDD depression. The ECT is also cheap and safe.

Abstract:0096

## Media-Computer Usage in Pre-School Children: The Relationship Between Temperament and Parental Attitude

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### ABSTRACT

**Objective:** Recently, television-internet-computer; become tools that can be used to manage moving, stubborn, impulsive children who need high intensity stimuli. All of this information reflects the relationship between TV-internet-computer usage times and child's temperament and parental attitudes in 3–7 year-old children. The aim of this study was to evaluate the relationship between TV-internet-computer usage times, child's temperament and parental attitudes in 3–7 year-old children based on this information.

**Methods:** 210 children from 3–6 years of age were taken into the survey. Rothbart's Child Behavior List was used to determine the temperament, the Parenting Attitude Research Instrument (PARI) was used to determine the parental attitude and sociodemographic form was filled with patients' mothers.

**Results:** There is an inverse relation between the increase in activity level, approach, discomfort and the age to start watching TV ( $p=0.02$ ,  $p=0.02$ ,  $p=0.03$ ,  $p=0.03$  respectively). The shyness is directly related with age to start watching TV ( $p=0.03$ ). The scores of the discomfort temperament subscale have a direct relationship with the duration of TV watching ( $p=0.025$ ). Background TV is inversely related with attention, inhibitory control, and perceptual sensitivity. Dependency, marital conflict, and strictness and authoritarianism parameters were found to be directly related with playing duration with smart phone ( $p=0.02$ ,  $p=0.02$ , and  $p=0.001$ , respectively).

**Conclusions:** Children with difficult temperament is allowed to watch television at earlier ages by their parents. Same bad parental attitudes are seen over the phone play duration. Despite the large number of publications related to their harm, it is thought that the fact that the parents are in such an attitude may be due to the despair and/ or lack of parental knowledge.

### KEYWORDS

Media; parenting style; temperament

Abstract:0176

## How Trait Impulsivity Associated with Creativity?

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**ABSTRACT**

**Objective:** Creativity becomes a more prominent skill in today's world that innovation is highly important in every area. A 50-year follow-up study showed that creative thinking score obtained during elementary school was positively correlated with lifetime achievements. Creativity has been tended to see as an innate ability and sometimes related with several mental disorders such as bipolar disorder and some personality traits such as impulsivity. In this present study, we examined a possible relationship between creativity and impulsive choices using objective tools.

**Methods:** The high school students from 9th and 10th grades (20 girls and 20 boys) completed the Iowa Gambling Task (IGT) which was based on choosing cards from the decks bring less reward but also less penalty. The creativity was evaluated using two different tests; Torrance Drawing Completion Test for visual creativity and Duncker's candle problem for verbal creativity. The drawings were scored for fluency, flexibility, originality, and elaboration by blind observes. The candle problem was asked to volunteers using a standard form with an answering time limit of 3 min. The latency for correct answer was recorded. The relationships between the variables were examined by using correlation analyses.

**Results:** The visual creativity score was positively correlated with card selecting duration at 3rd, 4th and 5th bins ( $r=0.470$ ,  $r=0.425$ , and  $r=0.387$ ;  $p<0.05$ , respectively). The correct answer latency in the candle test was negatively correlated with the total monetary reward at IGT ( $r=-0.573$ ,  $p<0.05$ ).

**Conclusions:** The present results indicated that the individuals with higher visual creativity scores spent more time while selecting the cards during the last three bins of IGT, indicating they made their decisions less impulsively. Moreover the individuals solved the candle problem faster earned more reward in IGT test. These results indicated that trait impulsivity is a negative factor for visual and verbal creativity.

**KEYWORDS**

Creativity; trait impulsivity; Iowa Gambling Task; Torrance Drawing Completion Test; Duncker's candle problem

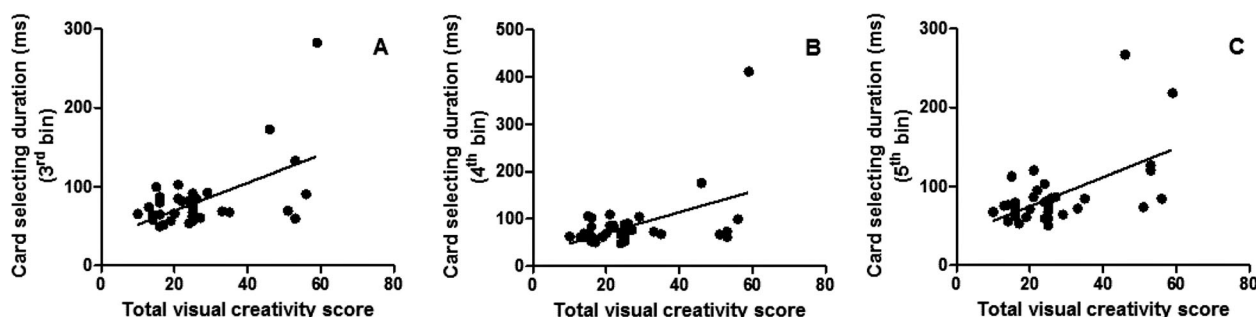


Figure 1.

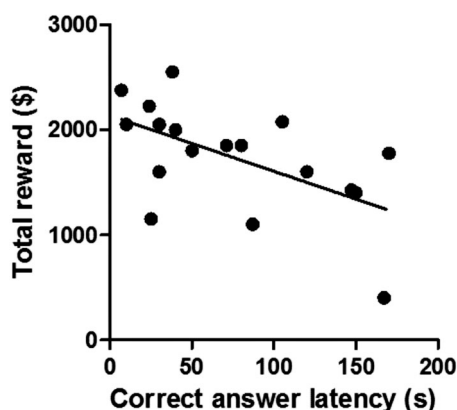


Figure 2.

Abstract:0248

## Metacognition in Vaginismus Patients

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### ABSTRACT

**Objective:** Vaginismus is defined as an involuntary contraction of the muscles of the outer third of the vagina. Vaginismus may occur in approximately 0.5% to 1% of women of childbearing age, although accurate estimations are lacking. Recent research, focusing largely on women with lifelong vaginismus, has shifted attention from the behavioral aspect of vaginal penetration to cognitive and emotional factors involved in processing sexual stimuli. The aim of this study was to reveal possible metacognitive impairments in vaginismus patients.

**Methods:** Metacognitions Questionnaire-30 (MCQ-30) was administered to patients with vaginismus for at least 6 months. The subscale of the MCQ-30 was compared with the averages obtained from the healthy women in Turkey.

**Results:** There was no significant difference between vaginismus and healthy group in positive beliefs about worry, negative beliefs about the controllability of thoughts and corresponding danger, cognitive confidence, and cognitive self-consciousness subscales. Negative beliefs about thoughts in general/need to control thoughts subscale was significantly different between the groups (mean Vaginismus=15.6±4, mean Healthy group=13.7±3.6,  $t(28)=2.522$ ,  $p=0.018$ ).

**Conclusions:** Negative beliefs about thoughts in general/need to control thoughts subscale includes the need to control beliefs that superstition, punishment, and responsibility. These beliefs related to the responsibility and punishment of the person for the harmful consequences that would arise if the person could not control them. These results were consistent with the efficacy of cognitive therapies in the treatment of vaginismus.

### KEYWORDS

Metacognition; vaginismus; sexual health

Abstract:0256

## How Do Women with Vaginismus Perceive Their Partners?

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### ABSTRACT

**Objective:** Many researchers working on vaginismus have studied prevalence, psychopathology, pathophysiology and treatment such as cognitive behavioral therapy or physiotherapy in females with vaginismus. The role of man in vaginismus has rarely been examined. Masters and Johnson have discussed a variety of etiological factors causing vaginismus including a response to male sexual dysfunction. Kaplan has reported that the man's reaction to his wife's dysfunction would vary depending on his psychological and sexual vulnerability. He might simply be frustrated by his inability to penetrate during sexual intercourse with his wife, or he might interpret her dysfunction as a rejection.

**Methods:** Birtchnell Marital Partner Evaluation Scale (BMPES) was administered to patients with vaginismus for at least 6 months. The subscale of the BMPES was compared with the averages obtained from the healthy women in Turkey.

**Results:** There was no significant difference between vaginismus and healthy group in disconnection and dependability subscales of BMPES. Dependency and suffocating subscale was significantly different between the groups (Dependency-mean Vaginismus=37.1±3.9, Dependency-mean Healthy group=28.2±6.2,  $t(25)=11.650$ ,  $p<0.001$ ; suffocating-mean Vaginismus=40.5±5.8, suffocating-mean Healthy group=32.1±8.5,  $t(25)=7.193$ ,  $p<0.001$ ).

**Conclusions:** It is known that the active contribution of the partner in the treatment of vaginismus is important. The attitude of the male partner is one of the factors that cause the vaginismus pathology to persist. In this study, we found that vaginismus patients perceived their partners as dependent and controlling. It can be argued whether this result is a cause

### KEYWORDS

Vaginismus; sexual health; couples

or a consequence. Further larger sample size studies are needed to replicate our findings and to generalize our results.

Abstract:0300

## Clinical and Demographic Characteristics of the Patients with Gender Identity Disorder

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### ABSTRACT

**Objective:** As a result of the studies, the most important indicator of adult sexual identity is not chromosomes, gonad, or genitals, but sexual identity that has been grown up in childhood. Approaches aiming to determine true gender have been replaced with approaches aiming to decide upon the “most appropriate” gender, and psychosexual development, reproduction, and general psychological function have been taken into consideration to determine the most appropriate gender. This study was conducted to examine the effects of gender dysfunction on children and adolescents; their diagnostic and psychological assessment features, also the evaluation of gender assignments.

**Methods:** 45 patients from the Ondokuz Mayıs University School of Medicine Hospital were enrolled. In the file of 25 patients who enrolled in the Department of Gender Identity Disorder and the cases were evaluated retrospectively.

**Results:** The mean age of the patients is  $6.3 \pm 6.1$ . 17.4% of the patients had female external genitalia and 82.6% had ambiguous genitalia. Karyotypes of patients: 46 XX in 39.1%, 46 XY in 47.8%, and 13% in the karyotype results were not achieved. 43.5% of the patients were diagnosed with congenital adrenal hyperplasia (CAH). Psychological assessment was performed in 44% of these patients. In 64.3% of the patients, the decision of the committee were in agreement with their biological identities and 35.7% of the patients had sex correction operation not in accordance with their biological identity. 45.4% of the patients with karyotypes XY were raised by their families as girls and 22.2% of the patients with karyotypes 46 XX were raised as boys.

**Conclusions:** Although most children with CAH have experienced androgen exposure in the prenatal period, most of these individuals develop a sexually appropriate gender identity that they have been raised with. Forming gender identity is a critical process related to the development of different factors and the interaction of these factors.

### KEYWORDS

Child; gender identity disorder

Abstract:0477

## Decresed Anxiety Symptoms on Extended Release-Methylphenidate Medication in Children with ADHD

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### ABSTRACT

**Objective:** Comorbid psychiatric disorders have been commonly seen in children and adolescents with attention-deficit/hyperactivity disorder (ADHD). Mean rate of the comorbidity of anxiety disorders in patients with ADHD were reported as 25% in clinical samples. Although psychostimulants are FDA-approved the first rank pharmacological agents in the treatment of ADHD, according to some treatment guidelines, the addition of SSRI to ADHD treatment or only atomoxetine treatment have been preferred in the presence of comorbid anxiety disorders in ADHD. The aim of this study was to evaluate the changes of both severity of ADHD symptoms and comorbid anxiety in children with ADHD after 8 weeks extended-release methylphenidate treatment.

**Methods:** 33 boys who were diagnosed with ADHD according to DSM IV-TR criteria at the Bakirkoy Mental Health Research and Training Hospital, Child and Adolescent Psychiatry

### KEYWORDS

Anxiety; ADHD; methylphenidate

outpatient clinic, were included in the study. All participants were already applied to clinical interview and K-SADS. ADHD symptoms were evaluated by Conners' Teacher and Parent Rating Scale. Symptoms of anxiety were measured using the Conners Parent Rating Scale (CPRS). Symptoms were measured before and after the 8 weeks of methylphenidate treatment. **Results:** There was a significant decrease in hyperactivity, attention deficit, and conduct problem subscales of Conners' Teacher Rating Scale (CTRS) and anxiety subscale score of CPRS after 8 weeks of methylphenidate treatment.

**Conclusions:** It is noteworthy that although potential anxiogenic side effect of psychostimulant, significant decrease in anxiety scores after methylphenidate treatment without any additional pharmacologic therapy or psychotherapy in our patient group with high rates of comorbid anxiety disorders (67% of all). Although it has not been found statistically significant ( $p=0.058$ ), decreased psychosomatic subscale of the CPRS after the treatment could be related to decreased severity of anxiety symptoms.

**Table 1.** Comparison of Conners Teacher and Parent Scales Before and After the Treatment.

Conners Teacher and Parent Scales		Mean Score (Mean $\pm$ SD)	p
CTRS Hyperactivity	BT	12.27 $\pm$ 5.92	<0.001
	AT	7.36 $\pm$ 5.38	
CTRS Inattention	BT	12.15 $\pm$ 5.44	0.015
	AT	7.87 $\pm$ 4.57	
CTRS Hyperactivity	BT	9.87 $\pm$ 5.81	<0.001
	AT	5.09 $\pm$ 4.82	
CPRS Hyperactivity	BT	7.87 $\pm$ 2.89	<0.001
	AT	5.15 $\pm$ 3.10	
CPRS Inattention	BT	8.06 $\pm$ 3.13	0.005
	AT	5.75 $\pm$ 2.94	
CPRS Conduct Problem	BT	13.72 $\pm$ 9.09	0.003
	AT	9.36 $\pm$ 7.44	
CPRS Anxiety	BT	9.66 $\pm$ 3.40	0.001
	AT	6.81 $\pm$ 3.24	
CPRS Psychosomatic	BT	3.12 $\pm$ 2.43	0.058
	AT	2.42 $\pm$ 2.43	

SD: Standard deviation; BT: Before treatment; AT: After treatment; CTRS: Conners Teacher Rating Scale; CPRS: Conners Parent Rating Scale

Abstract:0484

## Validity and Reliability of the Turkish Version of DSM-5 Level 2 Anxiety Scale (Child Form for 11–17 Years and Parent Form for 6–17 Years)

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### ABSTRACT

**Objective:** This study aimed to assess the validity and reliability of the Turkish Version of DSM-5 Level 2 Anxiety Scale's child and parent forms. DSM-5 Level 2 Anxiety Scale: Child form for 11–17 years and Parent Form: This scale has a 10-item parent form filled out by parents or legal guardian for 6–17 years of age and a 13-item self report form for adolescents to fill out for themselves. Level 2 Anxiety Scale provides a five point likert type assessment (1=never, 5=almost all the time). The scale was developed to be used for the first assessment and follow-up of children and adolescents that were diagnosed with anxiety disorder (or that have clinically severe anxiety symptoms). For each item, the subject is asked to rate the severity of symptoms regarding anxiety disorders for the past 7 days, for each item. Higher scores reflect the presence of a much more severe anxiety disorder

**Methods:** The scale was constructed by carrying out the translation and back translation of DSM-5 Level 2 Anxiety Scale. The study group consisted of a community and clinical sample. The scale was applied to 148 parents and 189 adolescents that represented the clinical and

### KEYWORDS

Level 2 Anxiety Scale; reliability; validity



community sample. During the assessment process, Screen for Childhood Anxiety Related Emotional Disorders and Strengths and Difficulties Questionnaire-Parent Form were also used. **Results:** Reliability analyses indicated a higher internal consistency regarding Level 2 Anxiety Scales, both for child and parent forms (Cronbach's  $\alpha=0.915$  for self report form and Cronbach's  $\alpha=0.933$  for parent form). In the meantime, it was shown that child form for Level 2 Anxiety Scale was significantly correlated with Screen for Childhood Anxiety Related Emotional Disorders ( $r=0.758$   $p<0.001$ ) while the parent form was significantly correlated with Strengths and Difficulties Questionnaire- Parent Form ( $r=0.717$   $p<0.001$ ). As for the content validity, one factor was obtained for both forms and was observed to be consistent with the original construct of the scale.

**Conclusions:** We concluded that Turkish version of DSM-5 Level 2 Anxiety Scale was a valid and reliable tool to be utilized both for clinical practice and research purposes.

Abstract:0485

## The Reliability and Validity of the Turkish version of the DSM-5 Level 2 Irritability Scale<sup>of</sup>

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### ABSTRACT

**Objective:** In this study, we aimed to assess the reliability and validity of DSM-5 Level 2 Irritability Scale-Turkish version. This is a scale that determined the severity of irritability among children and adolescents. The scale has a 7-item parent form filled out by parents or the legal guardian for 6–17 years of age and a 7-item self report form for adolescents to fill out themselves for ages 11–17 years.

**Methods:** DSM-5 Level 2 Irritability Scale was prepared by carrying out the translation and back-translation of the scale. Study groups consisted of a clinical sample that was diagnosed with bipolar disorder and treated in a child and adolescent psychiatry unit and a community sample between 2015 May and 2016 April. The study was done with 85 children aged between 11–17 years and 84 parents of children aged between 11–17 years. In the assessment process, Young Mania Rating Scale and Young Mania Rating Scale Parent Form were used along with DSM-5 Level 2 Irritability Scale.

**Results:** Regarding reliability analyses, a Cronbach alpha internal consistency coefficient was found 0.875 for child form and 0.886 for parent form. Item- total score correlation coefficients were statistically significant and within medium and high ranges. For construct validity, one factor as maintained in both forms and as found consistent with the original structure of the scale. As for concurrent validity, child and parent forms of the scale were in medium correlation with Young Mania rating scale.

**Conclusions:** We showed that the Turkish version of DSM-5 Level 2 Irritability Scale could be used as a valid and reliable tool both for clinical practice and research purposes.

### KEYWORDS

DSM-5 Level 2 Irritability Scale; reliability; validity; factor structure

Abstract:0486

## The Reliability and Validity of the Turkish version of the Weiss Functional Impairment Scale-Self Report Form

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**ABSTRACT**

**Objective:** Studies indicate that number of children diagnosed with a psychiatric disorder tend to decrease dramatically when assessed with functional impairment criteria. Since symptoms of an illness and functional impairment are not always in concordance and both reflect different concepts all suggest these concepts must be taken as a whole while evaluating every aspect of difficulty a child with attention-deficit/hyperactivity disorder (ADHD) encounters. Furthermore, compared to multidimensional general functioning and quality of life scales, instruments specific to ADHD diagnosis have greater importance. One of the self-report form used to evaluate ADHD is Weiss Functional Impairment Scale-Self Report Form (WFIRS-S). WFIRS-S is a self-report form made of 69 items that provide a 4-point Likert type measurement. It is made up of seven subdimensions in total: family, school, behavior, life skills, child's own self-apperception, social activities and risky behavior. The aim of this study was to demonstrate the reliability and validity of Turkish version of the WFIRS-S form.

**Methods:** Study sample consisted of two subgroups. One of the groups consisted of 35 children that were diagnosed with ADHD according to DSM-IV criteria and in follow up. Age range of subjects were planned as between 15–18. Other study group consisted of 510 healthy volunteers that had attended high school at the time of the study. Apart from WFIRS-S Form, to provide concurrent validity, Health Questionnaire for Children and Adolescents (KIDSCREEN-10 Index) that is a general quality of life and functioning measurement instrument was also applied.

**Results:** A Cronbach's alpha coefficient for total scale was measured as 0.939. Regarding test-retest reliability, correlation between two-week apart measurements were high ( $r=0.804$ ,  $p<0.001$ ). Total scale scores of the scale showed significant correlation with KIDSCREEN-10 Index total scores ( $r=-0.467$ ,  $p<0.001$ ).

**Conclusions:** This study revealed that Turkish version of WFIRS-S Form could be used as a valid and reliable tool in both clinical practice and for research purposes.

**KEYWORDS**

Weiss Functional Impairment Scale; reliability; validity; factor structure

Abstract:0405

## Medication Non-Adherence in Chronic Mental Illness: Management Strategies

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**ABSTRACT**

People with severe mental health problems often have difficulties with treatment compliance. They can have difficulty remembering to take medication or appointment times. Unpleasant side effects of medication can also lead to people stopping medication, and a lack of insight into their illness can mean they do not see the need to follow treatments. Also lack of knowledge about illness of the family is effective in medication non-adherence. The aim of this study is to draw attention to the importance of the subject. Non-compliance with treatment can lead to poor health outcomes and even relapses and hospitalization. Several effective psychosocial interventions are currently available for the treatment of mental illness; these include family therapy, psychoeducational approaches, behavioral interventions, motivational interviewing, and cognitive approaches. There is no gold standard approach to the measurement of adherence as all methods have pros and cons. The evidence from the studies reviewed shows that purely didactic psychoeducational interventions are the least effective for improving medication adherence. Successful forms of behavioral and cognitive interventions that improve medication adherence were those that: targeted and enhanced the therapeutic relationship; had a method for exploring the patient's model of their disorder, including their beliefs and expectations; and employed concrete problem-solving techniques. These overlap, all have some evidence of effectiveness, and the intervention adopted should be tailored to the individual. Psychosocial interventions that utilize combined approaches seem more effective than unidimensional approaches. As a result, to increase adherence to treatment, it is important to determine the factors affecting patient compliance with drug therapy. Then individual treatment plans need to be made. If the patient's treatment cessation causes understood, appropriate interventions can be selected.

**KEYWORDS**

Interventions; medication, mental illness; non-adherence

Abstract:0339

## Evaluation of Knowledge of Psychiatrists About Bruxism and Attitudes Towards the Treatment of This Condition

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### ABSTRACT

**Objective:** Bruxism is an umbrella term grouping together different motor activities of the jaw muscles including clenching and grinding of the teeth. Despite high prevalence, it is under-recognized and mostly unknown among psychiatrists.

**Methods:** An Internet-based survey study was conducted via the mail list of registered psychiatrists in Turkey. 165 participants were recruited via a Turkish psychiatry maillist.

**Results:** Most of the psychiatrists reported to encounter bruxism cases a few times in a year. The most common comorbidities were reported as major depressive disorder and generalized anxiety disorder. Nearly half of them prefer selective serotonin reuptake inhibitors as treatment. About half of them believe the benefit of psychotherapy in bruxism.

**Conclusions:** The low encounter percentage of bruxism may be due to low knowledge levels and unquestioning attitude of psychiatrists about this condition. It may also be due to non-inclusion in psychiatric diagnostic guidelines, despite being included in the International Classification of Sleep Disorders, Third Edition (ICSD-3). Accurate diagnosis is via polysomnography; however, questioning is generally sufficient to diagnose. Bruxism has a complex etiology including psychological, genetic and neuromuscular factors. Thus, psychotherapy may have a role in bruxism treatment. Also the drugs that psychiatrists prefer to treat bruxism such as selective serotonin reuptake inhibitors may be the cause of bruxism. Benzodiazepines, gabapentin, buspiron and trazodon may be useful in the treatment. Occlusal splint is also an option. The psychiatrists should know the diagnosis, related conditions, and the treatment options of bruxism.

### KEYWORDS

Bruxism; anxiety disorders; sleep disorders

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