

# 8<sup>th</sup> International Congress on Psychopharmacology & 4<sup>th</sup> International Symposium on Child and Adolescent Psychopharmacology

## INVITED SPEAKER ABSTRACTS

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### Mood stabilizers and cognitive functions

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Mood stabilizers are widely used for various indications particularly for bipolar disorders. For instance, lithium is an option in resistant depression cases, whereas valproate is used in impulse control disorders. Generally speaking, lithium and some anticonvulsants, such as valproate, carbamazepine, lamotrigine, and oxcarbazepine are members of mood stabilizers. In addition, off-label use of topiramate and gabapentin is also possible for some indications.

Currently, mood stabilizers are the most accepted treatment for bipolar disorders. Among psychiatric problems, bipolar disorders are the second most leading cause of functional loss in social, academic and occupational fields; following schizophrenia spectrum disorders, therefore one may say that mood stabilizers are worth to mention. Bipolar disorders particularly when in depressive or manic state lead to cognitive impairments. In previous studies, it has been reported that impairment in cognitive functions are observed not only in disorder, but also in euthymic state (1). It is also known that besides the natural course of the disorders, Mood stabilizers are also associated with cognitive impairments. On the other hand, it is reported to be uncertain in some studies whether the cognitive functional performances of the bipolar cases are associated with mood stabilizer drugs (1). In some studies, lithium was reported to be associated with low processing speed and verbal memory performance (2), whereas in some studies no significant correlations were found between verbal memory processing speed and lithium as well as the other mood stabilizers (3). It is commonly accepted that valproate and carbamazepine are more likely to cause impaired cognitive functions in comparison with the other mood stabilizers. One may say that lamotrigine is the most tolerable one among mood stabilizers for cognitive functions. Despite all these considerations, mood stabilizers are less likely to have negative effects on cognitive functions when compared with anti-psychotics or benzodiazepines (1).

In conclusion, it is accepted that the cognitive functions are impaired in bipolar disorders both endophenotypically and clinically. The overlapping results of the disorders themselves and the mood stabilizers in terms of cognitive functional impairment must be enlightened.

**Keywords:** mood stabilizers, bipolar disorders, cognitive functions

#### References

1. Senturk V, Goker C, Bilgic A, Olmez S, Tugcu H, Oncu B, Atbasoglu E.C. Impaired Verbal Memory And Otherwise Spared Cognition In Remitted Bipolar Patients On Monotherapy With Lithium Or Valproate. *Bipolar Disord* 2007;9:136-44.
2. Depp CA, Mausbach BT et al. Meta-Analysis of the association between cognitive abilities and everyday functioning in bipolar disorder. *Bipolar Disorders* 2012;14:217-26.
3. Goswami U, Sharma A, Khastagir U et al. Neuropsychological dysfunction, soft neurological signs and social disability in euthymic patients with bipolar disorder. *The British Journal of Psychiatry*, 2006;188(4): 366-73.

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## ADHD and Oxytocin

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Serum oxytocin (OT) might be a biomarker of central oxytocin system activity. Providing evidence for coordinated release, numerous physiological stimuli trigger both central and peripheral OT release, including birth, suckling, sexual activity, and various forms of stress. In one study suggested a possible relationship between OT dysregulation and ADHD symptoms in autism spectrum disorder. In a study with autism, patients with ADHD differed from healthy control children by significantly decreased OT concentrations similar to children with autism.

One study found higher OT reactive autoantibody levels in males with conduct disorder (CD) compared to controls. It was suggested that OXTR SNPs rs6770632 and rs1042778 are associated with persistent and pervasive aggressive behaviors in females and males. It has been reported that OT has potential as a treatment to improve the recognition of emotion in faces, allowing individuals to improve their insight into the intentions, desires, and mental states of others. Healthy adults administered intranasal OT can better recognize the expression of negative emotions, distinguish negative and positive expressions to a better degree, and remember happy faces better than angry, frustrated, or neutral faces. Also, it was reported that decreased serum OT levels in patients with ADHD than healthy controls and serum OT levels effects the impulsivity, aggression and empathy.

In the light of information below in ADHD, as in autism, OT may have a role in social limitations, aggression, and severity of symptoms. Thus, further studies on OT in children and adolescents with ADHD will not only contribute to the understanding of the etiopathogenesis of ADHD, but also provide additional information that is necessary to discover novel therapies.

**Keywords:** ADHD, oxytocin, child, adolescent

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## Immunology, depression and treatment implications

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Depression is a very common psychiatric disorder. The World Health Organization (WHO) estimates that more than 350 million individuals of all ages suffer from depression. For a long time there has been a great number of studies related to the etiology of depression in immune system and the role of immunity terms. These studies pointed out that both inflammatory markers and proinflammatory cytokines as increased than that of the healthy control and also an increased proportion of major depressive disorder found in cases with any inflammatory disorder compared to the healthy subjects. Within the last two decades, it has been found out that increased production/ secretion of the main proinflammatory cytokines such as interleukin-1 (IL-1), IL-6, tumor necrosis factor (TNF)-  $\alpha$  and acute phase reactants are important factors in the etiology of depression. During the last decade, the effects of antidepressants and psychotherapies used to treat depression on the immune system are being studied. These studies have suggested that IL-6 is an indicator of the severity of symptoms. This presentation aims to discuss the correlation of immune system and, depression/ depression treatments under the light of the most recently obtained literature findings.

**Keywords:** immunology, depression, treatment

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## Metaphor use in cognitive behavioral therapy: which metaphor in which case?

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Metaphor is a pattern of communication that comprised of any of the following: words, images, symbols, feelings, postures, and behaviors. It is an art of expression of thoughts and feelings or an issue via indirect narration and metaphors are being used in linguistics, philosophy, and in psychotherapies. Every culture and religion uses these types of stories and analogies to improve understanding, make a point more memorable, and help people make positive changes. It provides a conceptual bridge from a dysfunctional interpretation to a fresh new perspective. Metaphor is not only a communication pattern but also the principal mechanism behind abstract thought and comprehension. Metaphors are described not only as figures of speech, but also as neuron maps connecting the network of the metaphorical vehicle with the network of the metaphor's topic. As the fMRI studies supported that metaphors are being processed via specific neuronal mechanisms. Cognitive Behavioral Therapy (CBT) approaches are highly effective in the treatment of a variety of difficulties ranging from depression and anxiety disorders to chronic pain and sleep disorders. CBT model assumes that, changes in cognition and behaviors deliver clinical change. The emotions and affective changes observed during the sessions make the therapist immediately reach the hot cognitions and automatic thoughts in order to deal with them. In psychotherapy sessions a lot of metaphors can be used as stories, illustrations, some objects, music, taste, smell etc. which strongly evoke feelings, thoughts, and beliefs in order to constitute new perspectives and alternative functional interpretations. Effectiveness of CBT depends on both how much the client understands the therapist and how proper language are used by the therapist. The metaphor makes it easy for the clients to perceive some abstract and the concepts which seem them complex. The use of metaphors in CBT evokes emotions and hot cognitions and enhances information processing in sessions and thereafter. The goal is to help transform therapeutic information into a form that is easy to remember, provides useful guidance, and can be applied in relevant moments in a patient's life.

In this panel, some examples will be demonstrated about use of metaphors in CBT sessions, regarding the subjects as; achieving therapeutic alliance and enhancing motivation, psychoeducation, explanation of the ABC model and the rational of CBT, dealing with attribution biases and dysfunctional beliefs, applying guided discovery, explaining formulation of disorders such as Obsessive Compulsive Disorder and Depression, planning behavioral experiments and relapse preventing.

**Keywords:** behavioral therapy, cognitive therapy, CBT, metaphor

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## Biological markers and genetic factors for depression

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Major Depressive Disorder is a relatively common mental health disorder. The point prevalence of depression increases with age, from 1-2% during childhood up to 3-8% during adolescence (Zalsman et al. 2006). It can have deliberate consequences, of which the most important is suicide. A growing body of research has been conducted in order to identify possible underlying causes or to predict treatment response. These, so called, "biological markers" are biological changes associated with depression that could be used to indicate the presence and severity of the condition and predict treatment response and the prognosis (Lee and Kim 2013). New attempts of discovering and developing future biological markers that will aid the clinician in diagnosing and directing effective treatments for depression are providing new data (Bowers et al. 2012). There is much more consensus about genetic and environmental factors playing role in the pathophysiology of depression. These factors might possibly influence nervous system function and plasticity and modulate immune and endocrine cascades (Mossner et al. 2007). Although relatively inconsistent, deficiencies in monoamine systems, hyperactivity of the hypothalamic-pituitary-adrenal axis, decreased neuroplasticity, and neuroimaging markers may be associated with depression (Tamatam et al. 2012, Foland-Ross et al. 2013, Lee and Kim 2013). The aim of this presentation is to highlight and review possible biological markers and genetic factors that may clinically influence major depressive disorder.

**Keywords:** depression, biomarkers, etiology

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## Assessment, understanding, differential diagnosis, and treatment of Adult ADHD with case examples

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Some interesting cases will be presented in this course. Some adult Attention-deficit/hyperactivity disorder (ADHD) cases that is difficult to recognize, need to be differentiated such as MD, BD and BPD, treatment, follow up and the effect of functioning will be presented.

ADHD is the most common neurodevelopment disorder of childhood that persists into adulthood in the majority of cases. Adults with ADHD may underestimate the impact of ADHD symptoms. In many cases have learned to compensate for ADHD related impairments by choosing lifestyles, but some cases with ADHD can be detrimental to some areas of life including work, daily activities, social and family relationships and psychological and physical well-being. The recognition of adult ADHD and effective treatment of adults' ADHD improves symptoms, emotional lability, and patient functioning.

In adults, the clinical picture of ADHD is complex or often comorbidity with other psychiatric disorders (PsyD). However, the diagnosis of adult ADHD is sometimes difficult among the comorbidity PsyD and adult ADHD. Many adults with ADHD visit psychiatrists with psychiatric symptoms. Focusing on the growth history and difficulties in daily life persisting after the remission of PsyD enable psychiatrists to diagnose adult ADHD. However, the diagnosis of adult ADHD is sometimes difficult, because ADHD symptoms can be regarded as symptoms of some PsyD. There exist, however, slight differences in symptoms of adult ADHD and PsyD. ADHD therapy may help to improve symptoms of certain psychiatric comorbidities. Therefore, management of ADHD may help to stabilize daily functioning and facilitate a fuller recovery.

ADHD can resemble, and often co-occurs with, depressive disorder (MDD), bipolar disorder (BD) and borderline personality disorder (BPD). This can lead to misdiagnoses and ineffective treatment, resulting in potentially serious adverse consequences. ADHD in adults and BPD share some similar clinical features (e.g., impulsivity, emotional dysregulation, cognitive impairment). The ADHD and the BD maintain a complex relation. Indeed, these two syndromes share numerous symptoms that engender numerous diagnostic difficulties.

**Keywords:** adult ADHD, diagnosis, treatment, comorbidity

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## Comorbidity of mental disorders and substance use disorders: what should we know?

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Comorbidity of mental disorders and substance use disorders are quite common. Both mood, anxiety disorders, and personality disorders are consistently found to be highly prevalent among people with substance use disorders. Estimates of the prevalence of any mood disorder or any anxiety disorder among substance abusers are range 15-30% (1). Estimates of the prevalence of any personality disorder are even higher with reported rates ranging from 30 to 75% (2). Also behavioral addictions like gambling disorder, internet gaming disorder are commonly seen with substance use disorders (3).

The high prevalence between these comorbidities attributed to four theories as follows; i) overlapping genetic vulnerabilities which may predispose individuals to both disorders or having a greater risk of the second disorder once the first appears, ii) overlapping environmental triggers like stress, trauma (e.g., sexual, physical), and early exposure to drugs that can lead the disorders that have mentioned, iii) involvement of similar brain regions like brain circuits linked to reward processing, iv) substance use disorder and mental illness are developmental disorders; as both of them begin in young ages when the brain is undergoing developmental changes.

Comorbidities of substance use disorders and other mental disorders are a matter of great concern because of their serious consequences for patients, their families, health services and, society. Compared to patients with a single diagnose, patients with comorbid disorders have a higher risk for delayed diagnosis, more severe psychopathological symptoms, less compliance to treatment, more impairment in social functioning, increased admissions to inpatient clinics and suicidal ideation, increased risk for being unemployed, homeless, involved in a violent episode or criminal behavior (4).

According to the literature, comorbidity of substance use disorders with other mental disorders seems to be the rule more often than the exception. In planning treatment, the following must be considered: the severity of the condition; whether the disorders are induced or

independent; whether they should be treated separately, sequentially, or integrated; and where to find qualified treatment.

**Keywords:** comorbidity, mental disorder, substance use disorder

#### References

1. Kranzler HR, Rounsaville BJ ed. Dual diagnosis and treatment: substance abuse and comorbid medical and psychiatric disorders. New York: Marcel Dekker, Inc., 1997.
2. Verheul R, van Den Brink W, Hartgers C. Prevalence of personality disorders among alcoholics and drug addicts: an overview. *Eur Addict Res* 1995;1:166±177.
3. Grant JE, Potenza MN, Weinstein A, Gorelick DA. Introduction to behavioral addictions. *Am J Drug Alcohol Abuse*. 2010; 36(5):233-41. doi:10.3109/00952990.2010.491884.
4. Langås AM, Malt UF, Opjordsmoen S. Comorbid mental disorders in substance users from a single catchment area-a clinical study. *BMC Psychiatry*. 2011 Feb 12;11:25. doi: 10.1186

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## Fecal microbiota transplantation in neuropsychiatric disorders

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Microbiota-gut-brain axis and fecal microbiota transplantation (FMT) has been the focus of attention of the scientific community in recent years. More than 90% of microbiota-themed articles have been published in recent years (1). FMT is the process of transplanting feces from a healthy donor to the receiver's gut in order to recover the impaired intestinal flora (2). FMT has a 1700 years of history. The first known application of feces material for treatment has been performed by Ge Hong, a Chinese physician, in the fourth century (3). There are no medical records regarding its use through the subsequent centuries. This forgotten treatment method has been put into use again during the last 50 years. New evidence is obtained in the etiopathogenesis of neuropsychiatric disorders. There are a large number of experimental and clinical researches in the field of gut-brain axis. There is limited information on FMT. Despite this, initial results are promising. It is commonly used in the treatment of gastrointestinal diseases such as *Clostridium difficile* infection, Crohn's disease, ulcerative colitis. It is also experimentally used in the treatment of metabolic and autoimmune diseases. When the literature was search through, information about the application of FMT in psychiatric disorder such as schizophrenia, schizoaffective disorder, mood disorders, depression and anxiety disorders could not be found. However, there is strong evidence that intestinal microbiota dysbiosis may play an important role in the etiopathogenesis of these disorders. There are case reports that it is effective in the treatment of autism, Parkinson's disease, multiple sclerosis, chronic fatigue syndrome and irritable bowel syndrome. Its implementation is easy, and it is a cheap and reliable treatment method. However, the long-term risks are unknown. Oral application of FMT in the form of capsules to regulate intestinal microbiota after antibiotherapy may become a routine procedure in the future. Additionally, standard application protocols have not yet been established. There are a lot of questions to be answered. Gulhane Military Medicine Academy in Turkey has been granted an official permission this year, and started to administer FMT. In the coming period, the rapid determination of FMT applications and strong evidence with case samples demonstrating its effectiveness in neuropsychiatric disorders are needed.

**Keywords:** Fecal microbiota transplantation, gut-brain axis, immune system, psychiatry, neurology

#### References

1. Khanna S, Tosh PK. A clinician's primer on the role of the microbiome in human health and disease. *Mayo Clin Proc* 2014;89(1):107-114.
2. Xu MQ, Cao HL, Wang WQ, Wang S, Cau XC, Yan F, et al. Fecal microbiota transplantation broadening its application beyond intestinal disorders. *World J Gastroenterol* 2015;21(1):102-111.
3. Zhang F, Luo W, Shi Y, Fan Z, Ji G. Should we standardize the 1,700-year-old fecal microbiota transplantation? *Am J Gastroenterol* 2012;107(11):1755.

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## Sleep-related movement disorders

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Sleep related movement disorders are mainly characterized by relatively simple, usually stereotyped, movements that impair sleep or its onset and may lead to fatigue and worse sleep quality. The diagnosis of a sleep related movement disorder is required presence of nocturnal sleep disturbance or complaints of daytime sleepiness or fatigue. Although the clinical history may be diagnostic, polysomnography is occasionally necessary to make an accurate diagnosis of sleep related movement disorders and distinguish them from parasomnias. The third edition of the International Classification of Sleep Disorders (ICSD-3) consists of a category entitled sleep related movement disorders. Restless legs syndrome, periodic limb movement disorder, sleep related leg cramps, sleep related bruxism and sleep related rhythmic movement disorder, benign sleep myoclonus of infancy, propriospinal myoclonus at sleep onset, sleep related movement disorder due to a medical disorder, sleep related movement disorder due to a medication or substance, sleep related movement disorder, unspecified are listed in the sleep related movement disorders category. In addition to sleep related movement disorders category, excessive fragmentary myoclonus, hypnagogic foot tremor and alternating leg muscle activation, sleep starts (hypnic jerks) are listed as isolated symptoms and normal variants. Restless legs syndrome, also known as Willis-Ekbom disease, is a sensorimotor disorder that may lead to importantly sleep disturbances. Restless legs syndrome may significantly affect patient's quality of life and functioning. Several studies have reported an increased prevalence of mood and anxiety disorders in patients with restless legs syndrome. Besides, increased the frequency of pediatric and adult attention deficit hyperactivity disorder have been reported in patients with restless legs syndrome. The diagnosis of restless legs syndrome is based on clinical history. The diagnostic criteria includes an urge to move the legs, symptoms begin or worsen during periods of rest or inactivity, symptoms relieved by movement and symptoms occur exclusively or predominantly in the evening or night. Recognition and properly treatment of comorbid restless legs syndrome are especially important in patients with psychiatric disorders, as restless legs syndrome is a common medical cause of insomnia, and psychotropic drugs use may aggravate sensory symptoms. The most frequent causes of restless legs syndrome induced by psychotropic drugs are antidepressant and antipsychotic drugs. Periodic limb movement disorder is characterized by periodic episodes of repetitive, immensely stereotyped limb movements that occur during sleep. Sleep related bruxism is described as a repetitive jaw-muscle activity characterized by clenching or grinding of the teeth and/or by bracing or thrusting of the mandible. This abstract provides an overview of sleep related movement disorders classification, diagnosis, epidemiologic evidences, treatments and associations between sleep related movement disorders and psychiatric disorders.

**Keywords:** Movement disorder, restless leg syndrome, sleep

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## The long-term results of hyperprolactinemia

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Prolactin (PRL) is a pleiotropic polypeptide hormone that is secreted by the lactotrophic cells of anterior pituitary gland. PRL secretion shows a circadian rhythm. There are many known causes, both physiological and pathological, such as prolactinoma, chronic kidney disease, hypothyroidism, illegal psychoactive substance use, nursing, sleeping, sexual intercourse and pregnancy (1). It is also a side effect of many medications including antipsychotics. Hyperprolactinemia is a moderately common hypothalamic-pituitary-gonadal axis's disorder, with a prevalence documented at around 0.4% in the general population (2). Prolactin has been established to be present in various vertebrates and participating in over 300 separate actions, which can be qualified to six broad categories: (i) reproduction and lactation, (ii) growth and development, (iii) endocrinology and metabolism, (iv) brain and behavior, (v) immunomodulation and (vi) osmoregulation (3). Therefore Hyperprolactinemia has effect the several broads in human. That is to say, hyperprolactinemia may present with galactorrhea, irregular menstruation (oligomenorrhea or amenorrhea), inadequate corpus luteal phase, may affect sexual interest by causing decreased libido in genders and cause gynecomastia, infertility and erectile dysfunction in men. In addition, patients may experience symptoms consistent with hypoestrogenism and hypoandrogenism can lead to osteoporosis. Furthermore, there is an

increased risk for osteopenia and osteoporosis in patients on long-term therapy with especially novel antipsychotics when there is related through elevation of prolactin levels. Especially in men; hyperprolactinemia and its effects may also be asymptomatic, and possible subsequent osteoporosis hence has the potential to be severe by the time it is detected. Men have no dependable indicators such as menstruation to signal a problem. Hyperprolactinemia undesirably affects the fertility potential by inhibits the secretion of Gonadotropin-releasing hormone (GnRH) from the hypothalamus (by rising the release of dopamine from the arcuate nucleus) and hence delaying with ovulation. In women, acne and hirsutism may become with hyperprolactinemia, due to relative androgen excess compared with estrogen levels (4). Also, hyperprolactinemia has been shown to be intricate in the progression of different forms of cancer such as prostate cancer and breast cancer. However, Berinder et al. found no increased risk of breast cancer in women and a reduced risk of prostate cancer in men. This increased cancer risk was mainly attributed to improved risk of upper gastrointestinal tract cancers and hematopoietic cancers. Moreover, clinically, hyperprolactinemia is found in patients with autoimmune diseases such as systemic lupus erythematosus, rheumatoid arthritis, psoriatic arthritis, multiple sclerosis, Reiter's syndrome and Sjogren's syndrome. Patients with hyperprolactinemia and no symptoms (idiopathic or microprolactinoma) can be monitored without treatment. American Psychiatric Association guidelines recommend that patients are asked about symptoms consistent with possible hyperprolactinemia before starting an antipsychotic and that a baseline serum prolactin level should be measured depending on the clinical history. Finally, the long-term effects of an irregularly elevated prolactin may be severe and irreversible, so it is important that to follow comprehensive guidelines and formulated to aid clinicians in the monitoring and management of this condition.

**Keywords:** hyperprolactinemia, cancer, disease

**References:**

1. Freeman ME, Kanyicska B, Lerant A, Nagy G. Prolactin: structure, function, and regulation of secretion. *Physiological reviews* 2000;80:1523-1631.
2. Biller BM, Luciano A, Crosignani PG, Molitch M, Olive D, Rebar R, et al. Guidelines for the diagnosis and treatment of hyperprolactinemia. *J Reprod Med* 1999;44:1075-1084.
3. Binart N, Ormandy CJ, Kelly PA. Mammary gland development and the prolactin receptor. *Adv Exp Med Biol* 2000;480:85-92.

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## Is skin picking disorder truly part of an OCD spectrum disorders?

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Skin picking disorder (SPD), despite not being a dermatological problem, is an event characterized with excessively and repeatedly picking the skin and causing damage in epidermis (1). Unlike normal picking behavior, psychogenic skin picking is repeated. Therefore, it may cause severe damage on the skin and even life-critical events. Some patients reported frequent but ephemerae picking attacks, while some others reported attacks, less frequent but lasting a few hours (2,3). On the other hand SPD which is not taking place as a distinct diagnosis category in any classification systems till DSM-5 took place as an independent diagnosis in DSM-5. The fact that skin picking disorder has not been included until today caused that psychiatrists could not learn it sufficiently, it could not be diagnosed and proper treatment could not be arranged. SPD was thought as an independent syndrome as well as it could be a symptom of different psychiatric disorders before it was defined as a distinct diagnosis category in DSM-5 (1-3). The patients with skin picking complain have sometimes been diagnosed with OCD and some other times with impulse control disorder or stereotypical behavior. On the other hand, skin picking may be the symptom of body dysmorphic disorder or borderline personality disorder. A part of scientists suggest that skin picking should be conceptualized as OCD spectrum disorder due to the fact that psychogenic skin picking and trichotillomania resemble OCD. High OCD comorbidity rate, high skin picking rate in the people who are the first degree relatives of the patients diagnosed with OCD, the difficulty in the control of both the compulsions in OKB and picking impulsion, and a temporary comfort after the picking support this hypothesis. However, the fact that skin picking is seen in higher rate in females, while OCD uniformly affects the both genders, that compulsions start just after invasive thoughts, and that psychogenic skin picking rarely follows invasive thoughts are the characteristics differing from OCD. Some patients carry impulsive characteristics, whereas compulsive characteristics are in the foreground in some other patients. On the other hand, a part of patients have both compulsive and impulsive characteristics. In this context, it is reported that three subgroups, compulsive, impulsive and mixed, can be noted. Another view is to group them as 'body oriented repeated behaviors' since skin picking, trichotillomania, nail-biting, and chewing lips or cheek mucosa phenomenologically represent each other (1-3). It was notified in case reports in the open-labeled and double-blind studies those selective serotonin reuptake inhibitors are especially effective to reverse the habit in the treatment of skin picking. In this presentation diagnostic approaches will be dealt in company with literature findings.

**Keywords:** Skin picking disorder, DSM-5, OCD

**References:**

1. Aydin PÇ, Gülsiren L. Deri yolma bozukluğu. Psikiyatride Güncel Yaklaşımlar-Current Approaches in Psychiatry 2014; 6(4):401-28.
2. Grant JE, Odlaug BL. Skin picking disorder. Am J Psychiatry 2012;169(11):1143-9.
3. Snorrason I, Bjorgvinsson T. Diagnosis and treatment of hair pulling-and skin picking disorder. Laeknabladid 2012;98(3):155-62.

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## Neurobiological effects, risks and accompanying disorders of trauma on children and adolescents

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Trauma can be named as all kinds of events which affect a person's mental, spiritual life and have negative repercussions on the daily lives. These children who expose to trauma are at great risk of development of emotional, behavioral, psychological, cognitive and social problems. Certainly, it is clear that effects of trauma on developing child's brain with high plasticity will be great. When exposed to stress, brain initiates a chain reaction. Especially in the acute phase; traumatic events cause classical "fight or flight" reaction by activating the sympathetic nervous system and locus coeruleus and accelerating the cycle of catecholamine. The prolonged exposure to stress can cause brain neuronal atrophy, neurotoxicity and disruption of neurogenesis. Serious or chronic trauma can result with abnormal neurotransmitter and hormonal activity, neuronal differentiation and permanent changes in the organization. In addition to these; neurobiological effects of trauma include; dysregulation of the brain stem, changes in the central nervous system, disorder in cortical function, changes in catecholamine system, dysregulation of the pituitary hypothalamic-adrenal axis and the hypothalamic- pituitary thyroid axis. In children who suffer trauma; neuro-adrenergic system activation occurs. In these children; changes in neurotransmission of corticotrophin-releasing factor (CRF) and increase of cortisol levels were shown as a result of early exposure to stress. As known, chronic or prolonged elevation of glucocorticoids give serious damage to neurons. One of the best evidence for this effect is hippocampus in which there are many glucocorticoid receptors. It is believed that during ongoing stress or high cortisol levels; glutamate in hippocampus binds to N-methyl-D-aspartate (NMDA) receptors and cause neuronal damage. Reduction in hippocampus volume was shown in adolescents with PTSD diagnosis in post-traumatic period. However, studies are conflicting regarding hippocampus volume in the pre-adolescent period. Moreover, there are also evidence which shows that there can be reduction in the medial and posterior corpus callosum regions and abnormal cerebral lateralization in children and adolescents who exposed to trauma.

In child's brain which develops with trauma, risks such as deterioration in self-regulation, weakness of attention and executive function, decrease in learning and academic skills, difficulty in understanding social clues and developing appropriate social behavior can be seen in addition to neurobiological effects due to prolonged stress exposure.

It is detected that generally 36% of children who exposed to trauma can have Post Traumatic Stress Disorder (PTSD) diagnosis. Nearly three-quarters of the children who were traumatized and diagnosed with PTSD; take one or more comorbid diagnosis in their lifetime. These people are diagnosed with major depressive disorder with a rate of 37-48% over their life time. Attention deficit and hyperactivity disorder, oppositional defiant disorder and conduct disorders characterized with externalizing symptoms are also commonly seen in these children.

Negative neurobiological effect of early period trauma and stress on children and adolescents is unavoidable. In order to understand effect of trauma and ongoing stress on early period of development; further preclinical studies are needed.

**Keywords:** trauma, child, neurobiology

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## Antioxidants in anxiety disorders

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It is suggested that neuronal damage caused by free radicals to be effective in the formation of many psychiatric disorders. This assumption stems toxic effects of free radicals implicated in oxidative stress. When the brain is thought to be one of the most sensitive organs to the oxidative damage, the importance of oxidative stress in psychiatric disorders will be better understood.

It is known that oxidative stress and released free oxygen radicals play a role in the pathogenesis of anxiety disorders. Enzyme activity leading oxidative damage increases in these patients.

Patients who were diagnosed social phobia with an anxiety disorder were determined with high plasma MDA levels and they were normalized by treatment with citalopram.

Also, studies conducted with patients diagnosed Obsessive Compulsive Disorder and panic disorder, identified increased oxidative stress. These studies support the effect of oxidative metabolism on regulation of anxiety. When the oxidant / antioxidant status in obsessive compulsive disorder with anxiety disorder was analyzed, oxidative imbalance was observed and it was suggested that total antioxidant amount can even be used as markers for the diagnosis of these patients in the future.

Low antioxidant vitamin levels and high antioxidant level in the plasma of people with obsessive compulsive disorder were to be remarked. As a result, it seems that imbalance between ROS generating systems and antioxidant defense mechanisms play a role in the pathophysiology of anxiety disorders.

**Keywords:** antioxidants, anxiety , disorders

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## Antioxidant defense systems and determination methods

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Oxidative stress is generally considered as a condition underlying many diseases, and it is defined as an increase in reactive oxygen species (ROS) or a decrease in antioxidant defense. Reactive oxygen radicals cause damage to cells by different mechanisms. Neuronal membranes in the high amount of unsaturated fatty acid content are exposed to attack by reactive oxygen species and it causes lipid peroxidation. These effects damage anti-inflammatory and antioxidant functions effects neuronal membrane that provides a physiological defense against free radicals.

The capacity of antioxidant defense systems to catch ROS is highly important in protecting the tissues from oxidative damage. Cells and biological fluids have a series of enzymatic (like Superoxide dismutase (SOD), Catalase (CAT), Glutathione peroxidase (GPX), Glutathione -S-Transferase (GST) and non-enzymatic (Tocopherols, Carotenoids, and Flavonoids as lipid phase; Ascorbate, Urate, Glutathione, and other thiols as liquid phase) protective antioxidant mechanisms; acting together, they protect the cells from oxidative damage and prevent the formation of radicals.

Also high oxygen use in the brain, rich lipid structure which is one of the most sensitive molecular to the free radical damage, having the average antioxidant system support oxidative stress theory in the pathogenesis of psychiatric disorders.

**Keywords:** antioxidants, defense systems, determination methods

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## Antioxidants in schizophrenic disorders

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Schizophrenia a biological disorder causing a lot of behavior and thought disorders, major changes brain structure physiology and chemistry, it is a disorder affecting approximately 1% of the general population, emerging in the early stages of life and affecting brain's normal development. The relationship between schizophrenia and many social and biological factors was researched. It has been proposed theories on the etiology of schizophrenia.

In recent years, in schizophrenia etiopathogenesis the disorder of free radical metabolism or deficiency in the antioxidant defense system have been suggested to be important roles in the pathology of schizophrenia, clinical presentation and outcome. When the brain is thought to be one of the most sensitive organs to the oxidative damage, the importance of oxidative stress in psychiatric disorders will be better understood. In fact, some studies in schizophrenia patients have indicated changes both peripheral blood and the antioxidant system in the brain tissue. In recent years, the enzymes are suggested to be associated with psychiatric disorders. When the data obtained from the studies were considered, in several studies, it was accepted the presence of oxidative stress and oxidative damage in schizophrenia.

It is indisputable that antioxidant supplementation in patients with schizophrenia decreases positive and negative symptoms and it is indisputable the importance of prevention of many diseases and better prognosis.

**Keywords:** antioxidants, schizophrenia, disorders

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## The neurobiology of sexual desire and arousal in women

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### Sexual Arousal

The sexual arousal in women depends on neural, genetic hormonal and cultural factors. The emergence of sexual motivation arises with the arrival of sexually stimulating sensation to the called telodiensefalik reproduction which is also called as medial preoptic area. The tactile stimulation is respected as the premise of the genital sexual arousal. Skin receptors and biochemical characteristics of the vulvar and vaginal epithelial tissues contribute to sexual stimulation. Stimulatory signals that carried by spinal pathways are transmitted to ventromedial nucleus of hypothalamus and the surrounding cells. Central gray matter and ventral tegmental area have an important role in sexual arousal. The genitosensoral signals coming from central midbrain tegmental area and the vemeronasal signals coming from the medial amygdala interacts with the high cellular activity in the medial preoptic area. Anterolateral columns of the spinal cord form the descending pathway of sexual arousal. Stimulation of the pudendal motor fibers activates the pudental motor neurons and then perineal muscle contractions occur.

**Neurotransmitters:** The neurotransmitters released from peripheral organs and ganglions provide spinal cord reflexes by the stimulating effects. The presence of neurotransmitters in the postganglionic fibers reaching vagina and clitoris are known. 5 main neurotransmitters involved in the stimulation are; norepinephrine, dopamine, serotonin, acetylcholine, and histamine.

Norepinephrine; Sensory input from the genital organs is determined by the level of norepinephrine in the medial preoptic area. Afferent information from the genital organs is carried by the dorsal clitoral nerve and is stimulated by the norepinephrine in medial preoptic area which helps to maintain adequate sexual stimulation.

Dopamine; Dopaminergic ends in the basal forebrain strengthen the sexual arousal. Release of dopamine from preoptic area provides sexual stimulation. The effects of the ventral tegmental area on the woman's sexual arousal are in the basal of the forebrain. The effects of sex hormone on dopamine sensitive system in this area occur in this area.

Serotonin; The serotonergic receptors in the raphe neurons of the hypothalamus may affect female sexual responses.

Endocrine Determinants; Female sexual arousal in primitive animals depends on estrogen and progesterone. It is thought that sexual arousal in humans may be formed by the freely released gonadal hormones. In studies, complex sexual events are revealed in women

especially in periods close to ovulation. This symptom indicates that the sexual arousal in women is not completely independent of endocrine effects.

**Sexual Desire:** Decreased sexual desire disorder is defined as chronic and repetitive deficiency of desire for sexual activity and sexual fantasies. Depression, medication or a variety of sedative drug use should be excluded before the description of decreased sexual desire disorder. Prevalence among women is in the range 1-35%. This shows that the prevalence of sexual desire disorder changes due to the characteristics of livable communities and social change. There is evidence that androgens have a role in sexual desire disorders particularly in women.

**Keywords:** sexual desire, sexual arousal, neurobiology, women

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## Neurobiology of Premature Ejaculation

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Premature ejaculation (PE) is a most common male sexual dysfunction with complex pathogenesis. It is associated with abnormal neurobiology, which involves the central neurotransmitter system, peripheral nerve function of the nerve tissue structure, and neurological biochemistry. Ejaculation is a reflex between somatic, sympathetic, and parasympathetic pathways and central dopaminergic and serotonergic neuron. An antegrade ejaculation requires synchronized periurethral muscle contractions and bladder neck closure, concomitant with the relaxation of the external urinary sphincter. The emission of the seminal fluid is controlled by the sympathetic nervous system activating propulsive contraction of the smooth muscle of the prostate, vas deferens, and seminal vesicles, as well as prostatic glandular secretion. In contrast to sympathetic system clinical evidence for a functional role of parasympathetic innervation in the ejaculatory process is missing thus far. Dopamine (D) and serotonin (5-hydroxytryptamine, 5-HT) has a fundamental role for the regulation of ejaculation in experimental studies. The stimulation of 5-HT<sub>1A</sub> receptors at various places including cerebral, spinal, or peripheral autonomic ganglia has a generally positive effect on ejaculation, whereas stimulation of 5-HT<sub>2C</sub> has the opposite effect. The most likely neurogenic etiology of PE has been attributed to either a hyposensitivity of 5-HT<sub>2c</sub> receptors or a hypersensitivity of the 5-HT<sub>1a</sub> receptors which is the current neurogenic etiology. Current literature supports the involvement of 5-HT<sub>1A</sub>, 5-HT<sub>1B</sub> and 5-HT<sub>2C</sub> receptors in ejaculatory control. It is believed that the ejaculatory threshold for men with low 5-HT levels and/or 5-HT<sub>2C</sub> receptor hyposensitivity may be genetically set at a lower point, resulting in more rapid ejaculation. This theory is supported in part by demonstration of the efficacy of SSRI medications in inhibiting PE. It has been suggested that men with PE have a hyperexcitable ejaculatory reflex, resulting in a faster emission and/or expulsion phase. In addition, it has been proposed that men with PE may have a faster bulbocavernosus reflex, impairing their ability to learn to control ejaculation. One of the most well-known behavioral interventions for PE—the “squeeze technique” presumes that PE results from a defective ejaculatory reflex.

Recent data show a significantly higher rate of prostatic inflammation or infection among men diagnosed with PE. Prostatic pathologies have therefore been suggested as a possible etiology of PE.

There is also evidence for an association between hyperthyroidism and PE. A recent study demonstrated a 50% incidence of PE in the men with hyperthyroidism and a 7.1% incidence in men with hypothyroidism. Limited information supports the possibility of a genetic predisposition to PE. Familial predisposition is noted firstly at 1947: recently Waldinger found that 10 of 14 first-degree male relatives of men with lifelong PE also had PE (defined as IELT < 1 minute). Genetic polymorphisms of the serotonin transporter (5-HTT) promoter region protein leading to diminished synaptic 5-HT neurotransmission with increase in 5-HTT function is reported as genetic factors associated with short IELT in PE.

**Keywords:** ejaculation, neurobiology, physiology

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## What is theory of mind (ToM) and how do we measure it?

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ToM is a theory developed to realize that other people can have a different mind than oneself, to understand intention, belief, desire and knowledge of oneself or others, and to represent those mentally. There are three levels of ToM:

1. first degree false belief: comprehension that oneself knows and the other doesn't know.
2. second degree false belief: third person comprehends that oneself doesn't know that other person knows.
3. faux pas: comprehension of someone that he/she said something that he/she shouldn't have said without knowledge that he/she shouldn't have said that.

Psychopathologically, defect of ToM was first used to describe the signs in children with autistic spectrum disorder. Later on it was seen also with developmental, neurological and psychiatric disorders. There are two subtypes of ToM;

1. Social-cognitive ToM
2. Social-perceptual ToM

Social-cognitive ToM can be described as deriving mind status of people from their behavior. False belief tests are classical samples. Sally and Anne tests are the most known.

Social-perceptual ToM is the capacity to understand mental status of the others from direct observation. Eyes test are the most used method to measure this capacity. This capacity is said to be different from social-cognitive ToM, but related to the sense recognition capacity.

Normally we need both of the ToM capacities in order to understand the mind status of people. For example, to understand the ironical meaning of what an acquaintance is saying to us, it is necessary to pay attention to face+body mimics and voice tone (social-perceptual ToM), to analyze the words used and the status of the person, and to consider thoughts and believes which he/she has expressed.

Tests of ToM:

There are different tests developed from classical Sally and Anne tests of Wimmer and Perner. Hint test, Deception test, Understanding metaphor and irony, Sorting pictures, Test of cartoons containing false believes, Cookie test, Absurd tales and Test of adscription to mind status are the ones mostly used.

False belief tests are the most known among ToM tests. Sally and Anne tests are the most known. What is important in those tests is that the subject comprehends the changes in status of an object and that he/she knows that a character in the story, but the other person doesn't know that character, and he/she is supposed to predict the acts of that unknowing person (First degree ToM). This ability is gained in children normally at 3-4 years of age. In more complex versions of this test, the numbers of the person in the character chain are to be increased. In order to analyze the social cognition and abilities within the scope of ToM, Degirmencioglu et al. performed a study for validity and reliability in 2008; "Dokuz Eylul ToM Test" is composed of 5 pictures, 7 tales and 18 questions in total.

Tests for social-perceptual ToM are less. Eyes test is used in schizophrenia for measuring this ability. Eyes test measures the mind status of a person by looking at the mimics of the eyes.

**Keywords:** theory of mind, test, social, cognition

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## Pharmacovigilance of the drugs used in ADHD

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The rapid increase due to drug mortality and morbidity in recent years and their economic consequences are considered one of the most important health problems. Number of drug, indications, the diversity of adverse effects and increasingly more acceptance of side effects of the individual assessment approach and better understanding each day all of psychological, social, educational, pharmaco-economic results becomes necessary to examine in more details from different perspectives after marketing. It is better understood to need for national pharmacovigilance system when considering the role of socio-cultural, economic and genetic factors in drug use. Pharmacovigilance is a multidisciplinary workspace which is dealing with the identifying, monitoring, prevention or minimizing of the

problems due to drugs and is in close relationship with all disciplines in the interests of the drug especially pharmacology, toxicology, epidemiology and industry and other relevant organizations. Both in our country and around the world current pharmacovigilance systems are limited by spontaneous reporting of adverse drug reactions, lack of a denominator, and lower than expected reporting rates. In the UK the pharmacovigilance data suggest that adverse drug reactions account for 1.5-2.1% of pediatric hospital admissions, affect 2.6-9.3% of pediatric inpatients and 1.5-11.1% of pediatric outpatients. Although the medications for Attention deficit hyperactivity disorder (ADHD) are generally well-tolerated, commonly reported adverse effects include neurological effects (such as headache, insomnia), gastroenterological effects (loss of appetite, nausea and vomiting, abdominal pain), psychiatric effects (mood, anxiety) and chronic effects such as growth restriction and increases in blood pressure. In a study conducted in UK forty-six symptoms were reported for methylphenidate of which the most frequent were mood problems (34.8%), feeding problems (26%), schooling problems (9.3%), and headache (9.3%). The data of the common side effects of methylphenidate are more accessible than the data of the rare side effects of methylphenidate in the long-term effects of methylphenidate treatment studies via the European pharmacovigilance system. For this reason, long-term studies of drug safety and side effects although the generated data sources, for qualification and analysis of these data the health workers to contain complete records of side effects, questioning the signs of they may have thought that medication side effects, and while these data are recorded socio-cultural, economic, and genetic variables also need to be considered.

**Keywords:** ADHD, adverse effect, drug, pharmacovigilance

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## Management of antipsychotic-induced sedation in schizophrenia

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Sedation is a frequent and usually dose-dependent side effect of antipsychotics. Antipsychotics' sedative effects can alleviate psychotic symptoms and promote sleep in insomnia. Many patients experience transient somnolence in the beginning of antipsychotic treatment, and most develop tolerance to sedation within a few months of treatment. Antipsychotic drugs with muscarinic, histaminergic, and adrenergic blocking properties may lead to sedation. Studies have indicated that sedation is especially associated with the affinity of the antipsychotic for the histamine H1 receptors, and the amount of the drug reaching the histamine H1 receptors in the central nervous system. Sedation can occur both with first generation antipsychotics (FGA) and second generation antipsychotics (SGA), but it is more common and tends to be more severe with FGAs relative to SGAs. Compared to younger patients, sedation is more common in elderly patients. Sedation must be distinguished from the negative symptoms of schizophrenia, such as avolition, from depression and from cognitive impairment.

Sedation can seriously impair the patients' functioning as well as their quality of life, and contribute to poor adherence. Therefore, accurate assessment and appropriate treatment of sedation is essential. Strategies for the management of sedation with antipsychotics include the following: 1) Select the initial antipsychotic based on effectiveness rather than relying on side effects—such as sedation. Start the antipsychotic at lower doses and titrate to a reasonable dose, not to a very high dose. Use a non-antipsychotic medicine to control agitation, insomnia. 2) Rule out any psychiatric and medical conditions such as depression, hypothyroidism, obstructive sleep apnea, and restless legs syndrome that may result in fatigue and sedation. 3) Rule out comorbid alcohol and substance use. 4) Review the patient's medication list to determine if other potentially sedating medications may be reduced or eliminated. 5) To reduce daytime sedation, instruct the patient to take all or most of the antipsychotic dose at bedtime. 6) Educate the patient about sleep hygiene. 7) Consider gradually reducing the patient's antipsychotic dose, and closely monitor for worsening of psychosis. If sedation persists despite these interventions 8) Consider switching the patient to a less sedating antipsychotic such as ziprasidone or aripiprazole. 9) Offer caffeine or off-label bupropion 75 to 100 mg once in the morning or up to twice daily—These might help the patient be more alert. 10) For excessive sedation, consider prescribing stimulant agents, such as methylphenidate, modafinil, armodafinil, some amphetaminic agents and orexin agonists. As stimulating agents increase dopamine release in the CNS, which theoretically can worsen psychosis, their use for patients with schizophrenia is controversial. Clinicians must weigh the risks and benefits of prescribing stimulants in patients with schizophrenia.

**Keywords:** antipsychotic, schizophrenia, sedation

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## Cognitive therapies from Rumi's point of view and metaphors

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Psychotherapy is a general name of interventions used to resolve emotional conflicts, support and sustain the improvement of mental health. Relationship is one of the most important factors of regenerative effect in psychotherapy. It is crucial to develop a mutual understanding between psychotherapist and client. Thus, in order to be effective in psychotherapeutic interventions, it is necessary to consider the client's beliefs, culture, religion and background while using the language. Comprehending and using of psychotherapy only from the Western point of view could reduce the efficacy of psychotherapy. Although, mental health workers which learn and use the techniques of authorities from West are common, our culture is considerably wealthy of thoughts and aspects that can be used in psychotherapy. As psychotherapists rose on the lands that have extremely rich cultural heritage, we think that it is our responsibility to integrate modern psychotherapy with cultural heritage when learning, practicing and teaching the practice of psychotherapy.

Metaphor means to convey as a word sense and used in the meaning of 'take on a new meaning' in the rhetoric. Metaphor is a direct comparison of the subjects which seem unrelated. People used metaphors frequently to communicate others from past to present. It is seen that Mevlana Celaleddin-i Rumi preferred to use metaphors in his writings.

With using of metaphors, it becomes easy to provide acceptance and unprejudiced receptivity which are main strategies of mindfulness based therapies. By means of this a new appearance of the current situation which can be accepted more easily without any prejudice could be revealed for the client. Each of the stories told in Mesnevi are metaphors. They are not just stories. They all have a gist. Mindfulness is also to find out the gist, by purifying the self from judgments and guises. Metaphors are important in both Cognitive Behavioral Therapy and mindfulness based therapies. Metaphor should be chosen from the common cultural elements to be effective and comprehensible. From this point of view Mesnevi is one of the most generous writings. Changes on core beliefs which are the main point of Cognitive Behavioral Therapy could be reinforced with metaphors. Metaphors serve as a cognitive domain in which distressing thoughts and feelings are criticized and renamed. It is totally different from trying to persuade the client to something. It is similar to Socratic Method. As Padesky (1993) said 'There isn't any answer in the best cognitive therapy. There are only good questions which would guide the exploration of different answers of millions of people.' Metaphors provide an improvement with awareness by bringing some questions and their answers to the mind of client reviewing Mevlana Celaleddin-i Rumi and his writings as a universal value and source of inspiration for many psychotherapies, and also using the metaphors from his writings are thought to be important and useful.

**Keywords:** metaphor, bibliotherapy, cognitive therapy, mindfulness, Rumi

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## Handling with mood disorders in pediatric patients with treatment resistance

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There is not a consensus describing treatment resistant mood disorders. Treatment resistant mood disorders in pediatric population may lead to lifelong neurobiological and psychosocial disadvantages. For handling with treatment resistant mood conditions that may lead to completed suicide we must know the previous treatments (treatment responses and side effect profile) targeting mood symptoms. We also should learn the treatments which had improved mood symptoms in the family members before. We have to be sure about sleep hygiene, treatment adherence of the patient and the family and we should know whether the patient used the drug for appropriate duration (8 weeks for antidepressants, 4-6 weeks for atypical antipsychotics) and with ideal dose. According to DSM-5 for diagnosing "persistent depressive disorder- chronic depression" symptoms should have been manifest for two years. In dealing with patients experiencing treatment resistant mood disorders, firstly we should be certain of the diagnosis (bipolar depression, DMDD, personality disorders, organic mental states, factitious disorder). Also we must exclude substance use, psychosocial problems (parental psychopathology, marital conflict, and dissociative families), persistent-continuing traumatic experiences, comorbid conditions (ADHD, conduct disorder, anxiety disorders) which may complicate clinical prognosis or may change treatment plan. In treatment resistant pediatric depression unlike in adults tricyclic antidepressants are not effective and also switching SSRI's could be as efficacious as continuing treatment with a SNRI (TORDIA Study). SNRI's

are not generally well tolerated in pediatric patients but some adolescents may improve. In depressive mixed states which are a challenging condition for clinicians, quetiapine, lurasidone or lamotrigine (in the long term) may be helpful. For disruptive mood dysregulation disorder, another treatment resistant condition, treatment plan should be determined regarding the comorbid conditions and leading symptoms (stimulants, antidepressants, trazodone, mood stabilizers, atypical antipsychotics,  $\alpha_2$  agonists). In treatment resistant pediatric depression with generalized anxiety disorder and somatic symptoms pregabalin, duloxetine are alternative treatments. For depression switching to SNRI's, mirtazapine, bupropion, agomelatine or augmentation strategies including atypical antipsychotics (quetiapine, aripiprazole, lurasidone, risperidone, olanzapine), lithium, thyroid hormones, bupropion, buspirone, pindolol, mirtazapine, agomelatine, modafinil, psychostimulants, riluzole, NAC, SAM, BH4 and omega 3 fatty acids should be tried. In treatment resistant pediatric bipolar depression combination of lamotrigine, quetiapine or lurasidone should be considered. There is a need of further studies for exploring the possible efficacy of asenapine, cariprazine, brexpiprazole in treatment resistant mood conditions. For refractory manic episodes benzodiazepines, two different mood stabilizers (generally lithium/valproate or lithium/lamotrigine) plus atypical antipsychotics or two different atypical antipsychotics plus a mood stabilizer can be effective. In treatment resistant mood disorders or for patients exhibiting intolerable side effects impairing treatment adherence we should consider about performing pharmacogenetic tests and serum drug levels other than lithium, carbamazepine and valproate. We should keep back clozapine (mania), ECT/TMS and vagal stimulation for the hardest of cases. There is a need of safe and tolerable drugs which has a similar effect like ketamine on treatment resistant severe depression.

**Keywords:** bipolar disorder, depression, mania, mood disorder, treatment resistant

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## Treatment of suicidal thoughts in PTSD

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Suicide, according to data from the World Health Organization, is among the top 10 leading causes of death in developed countries. Factors such as a family history of suicide or suicide attempt, early loss of a member, a history of physical and sexual abuse, separation from parents, presence of communication problems in the family, unemployment, and lower socioeconomic status and low educational level are the risk factors for suicidal behaviors for which there is a consensus. Also Interpersonal relationship problems (with parents or partner), abandonment by a spouse, physical / verbal / sexual abuse, death of significant others, job loss, failure at school, disability and estrangement in the elderly and physical losses such as loss of somatic abilities resulting from an accident or illness may be a trigger for suicidal behaviors. Traumatic experiences as example physical and sexual abuse and parental neglect in early childhood are reported to cause suicidal tendencies in adulthood, and these factors are known to increase the risk of many disorders, such as depression, anxiety disorder, borderline personality disorder, somatoform disorders, and sexual dysfunction.

Posttraumatic stress disorder (PTSD) is a significant disabling psychiatric disorder that can result from exposure to trauma that was first assessed and described as a result of observations in soldiers returning from war. About 15% and 17% of American Vietnam War veterans have a lifetime diagnosis of full PTSD, in addition, 11% have a diagnosis of partial PTSD because of studies of high risk-individuals, that is, populations with a history of exposure to a trauma, show higher rates. There are different factors of traumatic events that find to have a particular psychological significance, including a threat to one's life and physical integrity, severe physical harm or injury, witnessing or learning of violence or severe harm to others, and exposure to disfigured human bodies. In literature, studies (reviews and meta-analysis) were reported that patients with PTSD in whom the rates of suicidal ideation idea have been found to range between 20 and 70% and the rates of suicide attempts to range between 10 and 40%. However traumatic stress and suicide is a significant target for treatment and prevention. Suicide treatments include to pharmacologic and/or psychotherapy interventions. To our knowledge, clinicians proposed that trauma-focused cognitive behavioral therapy (CBT), exposure therapies, and eye movement desensitization and reprocessing (EMDR) are the most efficacious treatments. CBT was developed different solutions that effective in patients who have suicidal thoughts. In EMDR therapy, source improvement and safe area exercise may be beneficial while intervening to suicidal ideations. Suicide prevention programs aims to modify attitudes about PTSD, deliver support and education, and identify and refer at-risk personnel. So, psychoeducational strategy study on peer-group risk evaluation may have a number of benefits in terms of reducing stigmatizing attitudes and increasing help seeking behavior.

**Keywords:** PTSD, suicide, treatment

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## TMS with neuronavigation experience

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Transcranial Magnetic Stimulation (TMS) is a non-invasive brain stimulation technique approved for medication-refractory unipolar depression, schizophrenia and anxiety disorders. Although there is sufficient evidence for the treatment of schizophrenia and anxiety disorders, efficacy of TMS as monotherapy or add-on treatment in medication-resistant depression is confirmed by several studies. The most important advantage of TMS is a safe and well tolerated stimulation method that can be considered as a favorable treatment option in medication for refractory situations. At the same time, since about twenty years, transcranial magnetic stimulation is used as a technique to investigate the function of specific cortical regions by several clinics. Repetitive TMS (rTMS) trials have targeted different regions that dorsolateral prefrontal cortex (dlPFC) to treat depression, temporal-parietal cortex (The posterior border of Wernicke's area at the junction of Brodmans areas 39 and 40 of inferior parietal lobule) to treat schizophrenic patients with medication-resistant auditory hallucinations and right prefrontal cortex to treat post-traumatic stress disorder symptoms of re-experiencing and avoidance. Applying the right point is an important problem in TMS treatment. In clinical practice, regions have been defined according to a "standard" scalp distance to the site of stimulation evoking motor responses of maximal amplitude in the contralateral hand. The coil positioning sets the dorsolateral prefrontal cortex as being located 5 cm anterior to the hand motor point, the dorsolateral premotor cortex (dlPMC) as being located 2–3 cm anterior, and the primary somatosensory cortex as being located 3 cm posterior to the standard practice of TMS treatments. Studies were showed that the standard procedure of coil positioning not accurate to target a desired cortical region. Navigation for positioning of TMS coils over preselected brain regions in scientific research or clinical procedures. Studies were reported that the standard procedure of coil positioning could partly explain the between-study variability of the therapeutic effects produced by rTMS in patients with depression. Neuronal structures differ widely between patients; any anatomical data shown on the standard procedure not match the true anatomy of the patient. Another advantage of neuronavigation, integrating the individual magnetic resonance imaging data of the patients allow TMS targeting to be more precise by taking into account the variability of brain anatomy. TMS treatment is applied for about 30 minutes. Stability and repetition are the important condition for the TMS treatment. Movements in the position or angulation or distance of a coil will change the stimulus region as well as the strength of the field applied in the cortex. The use of external fixation devices for stable coil positioning in non-navigated TMS has been suggested, but such a method also requires fixation of the head, which is difficult procedure and uncomfortable for the patient. Coil movement is particularly problematic when using TMS, since movement may cause a decreased effect of the therapy. The purpose of this panel is to describe the clinical experiences of neuronavigation in TMS treatment.

**Keywords:** clinical experiences, neuronavigation, TMS

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## A new model for assessment of cognitive functions in patients with schizophrenia (BDG-TR)

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Cognitive symptoms in schizophrenia have regained attention after the neurodevelopmental model in schizophrenia emerged in the 1980s. Nearly 75% of all schizophrenia patients are affected by cognitive impairment (1). Cognitive symptoms are associated with loss of function in patients' daily lives (2). Cognitive improvement is found to be related with improvement in clinical symptoms and functioning (3).

It is necessary to evaluate the efficacy of any therapeutic intervention in the treatment of schizophrenia. Current batteries of neuropsychological testing are generally not easily accessible, expensive, and time-consuming. There is a requirement for practical tool with a brief administration time. In 2008 Ventura et al. developed the Cognitive Assessment Interview (CAI). The CAI emerged by combining and adapting the Schizophrenia Cognition Rating Scale (SCoRS) and the Clinical Global Impression of Cognition in

Schizophrenia (CGI-CogS).

CAI is a 10-item scale completed by the examiner during interviews with the patients and their relatives (informants), where each question is given a score on a likert scale ranging from 1 to 7. Patient's, relative's and the interviewer's assessment are scored separately. The rating scale is based on healthy people with similar education and sociocultural level. CAI assesses verbal learning: working memory, reasoning and problem solving, speed of processing, attention/ vigilance, and social cognition. The scale gives the general severity of cognitive impairment scored from one to seven, which is determined after these evaluations. High scores show poor cognitive status with a negative impact on daily functioning. CAI also has a Global Assessment of Functioning Cognition in Schizophrenia section. This section is similar to the DSM IV General Assessment of Functioning (GAF) scale.

Turkish version of CAI has been shown that it was a reliable and valid instrument to evaluate cognitive functioning with Cronbach's alpha value of 0.97. Turkish version of CAI is a very practical and useful tool with some additional advantages, similar to original version, such as being a clinically based interview with a brief administration time providing information about patients' functioning.

**Reference:**

1. O'Carroll R. Cognitive impairment in schizophrenia. *Advances in Psychiatric Treatment* 2000;6(3):161-8.
2. Green MF, Kern RS, Braff DL, Mintz J. Neurocognitive deficits and functional outcome in schizophrenia: are we measuring the "right stuff"? *Schizophr Bull* 2000;26(1):11936.
3. Pandina G, Bilder R, Turkoz I, Alphas L. Identification of clinically meaningful relationships among cognition, functionality, and symptoms in subjects with schizophrenia or schizoaffective disorder. *Schizophr Res* 2013;143(2- 3):312-8.

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## Experiences of transcranial magnetic stimulation in pregnancy and nursing mothers

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Transcranial magnetic stimulation (TMS) is a noninvasive and safe technique for motor cortex stimulation. TMS is used to treat neurological and psychiatric disorders, including mood and movement disorders. Treating resistant depression, tinnitus, psychogenic dysphonia, Alzheimer disease, autism, Parkinson disease, dystonia, stroke, epilepsy, generalized anxiety as well as post traumatic stress disorder, auditory hallucinations, chronic pain, aphasia, obsessive-compulsive disorders

TMS is an emerging novel treatment modality for psychiatric disorders, particularly major depressive disorder. A device for delivery of TMS was approved by the US Food and Drug Administration for treatment of major depressive disorder in adults. TMS can also treat perinatal and postpartum depression.

Electrical stimulation of nerves and muscles was first shown by Galvani and Volta in the 1790s. Silvanus P. Thompson trying to stimulate his brain using a magnetic field, London 1910. The Sheffield group with the stimulator which first achieved transcranial magnetic stimulation, February 1985. rTMS (repetitive Transcranial Magnetic Stimulation) was approved for the treatment of depression in Canada (2002) and in the United States (2008) and has been used to effectively treat thousands of patients with depression.

The rTMS treatment protocol is noninvasive and capitalizes on the principle of electromagnetic induction to elicit an electrical current in brain tissue of enough magnitude to depolarize neurons within the cerebral cortex; these neurons are part of relevant circuits involved in emotional regulation. Antidepressant effects of high-frequency rTMS over the left DLPFC and low-frequency rTMS over the right DLPFC The use of rTMS as an evidence-based treatment for depression has been increasingly recognized and accepted.

Perinatal depression is a common condition, with a prevalence of 15-22%. Some depressive symptoms such as lack of appetite, pessimistic thoughts, and insufficient self-care can be especially hazardous during pregnancy, affecting both the mother and the fetus. The treatment of antenatal depression is challenging since some antidepressant drugs have been associated with birth defects, e.g., paroxetine, sertraline, citalopram, and fluoxetine. In addition, several antidepressant drugs are not recommended for postnatal depression - some examples include SSRIs, venlafaxine, and lithium.

Many mothers are reluctant to take medication because of concerns about side effects or exposure of their newborn infant through breastfeeding. Some patients prefer non medicated treatment options. Maintenance rTMS may be an effective and feasible treatment option for pregnant and postpartum women with major depressive disorder. rTMS can be considered as a safe and tolerable stimulation method in major depressive disorder during pregnancy and postpartum, with minor side effects.

rTMS treatment is a significant treatment choice for the patients who cannot use medication, do not want to use, do not respond to psychotropic treatment at major depressive disorder seen on the pregnant and postpartum mothers. To optimize rTMS treatment, well structured, controlled studies with wider sample should be done. In this presentation rTMS experiences in pregnancy and nursing mothers will be shared.

**Keywords:** repetitive Transcranial Magnetic Stimulation (rTMS), pregnancy, nursing, experiences, depression

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## Oxidative stress and antioxidants in mood disorders

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Mood disorders are a common psychiatric condition, the etiology of which still remains unclear. One of the widely accepted hypothesis is that oxidative and nitrosative stress pathways together with immune-inflammatory response may play an important role in the pathogenic mechanisms underlying depression and bipolar disorder. Oxidative stress, which leads to cell damage and impairment in the brain functions, occurs when there is an abnormal imbalance between generation of reactive oxygen (ROS) and reactive nitrogen species (RNS) and eliminating/ balancing systems of these species. These defensive systems consist of antioxidants, antioxidant enzymes, and proteins. There is converging evidence regarding changed levels of oxidative stress markers and decreased concentrations of several endogenous antioxidant compounds in major depressive disorder. Additionally, increased levels of oxidative stress markers in bipolar disorder were observed in several studies, suggesting that oxidative damage may also be involved in bipolar disorder. A number of studies revealed that long-term treatment of antidepressant agents have antioxidant effects and can reverse the increased oxidative stress status. Finally, adding antioxidant agents (N-acetylcysteine, zinc, and omega-3 free fatty acids, etc.) to antidepressant treatment has been shown to enhance the treatment response to antidepressants in patients with depression. This presentation aims to provide information regarding the contribution of oxidative stress to the pathogenesis of mood disorders and review the impacts of antioxidants.

**Keywords:** mood disorders, oxidative stress, antioxidants

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## Impulsivity in atypical depression

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It has been suggested that the atypical subtype of major depressive disorder is a strong predictor of obesity. The risk of developing obesity for individuals with atypical depressive subtype has been much higher than other subtypes. The association between depressive symptoms and over eating has been noticed, especially in female gender. However, the mechanisms that explain the relationship between atypical depression and overweight are not well understood. Depressive symptoms may alter eating behaviors or eating may be as a coping mechanism reducing negative emotions.

Specific features of atypical depression include mood reactivity and interpersonal rejection sensitivity criteria. Mood reactivity and interpersonal rejection remind character features. Besides this, studies have shown association between atypical depression and bipolarity.

Individuals who were depressed or impulsive were found to be eating more. Negative emotions such as anger and sadness have been associated with increased impulsive eating to regulate the emotional state. It is reported that eating as a response to emotions predicts binge eating and related to bulimia nervosa. Genetic predisposition towards impulsivity and reward sensitivity and as a consequence a tendency to depression has been reported in emotional eating. Bulimia nervosa has been associated with impulsive traits. Eating disorder diagnosed patients were determined as they were unaware of and had difficulty in the expression of their anger suitably and had turned anger toward themselves. In response to negative emotions, consumption of more food, and increase in impulsive eating were determined. Eating behavior has been defined as a way to cope with negative emotions. If there is a belief or experience that some

behaviors induce positive state and decrease negative emotions, they can be used to cope with depression.

Here, we present results of our study. Impulsivity was evaluated whether impulsivity and eating attitudes in an atypical depression group were different from a non-atypical depression group and a healthy control group. The study evaluated impulsivity, anger, eating attitudes, and presence of behaviors that are associated with lack of control: self-destruction, and binge eating in atypical depression and compared them with non-atypical depression and a healthy control group.

Trait impulsivity and anger were increased in atypical depression compared to non-atypical depression. Anger and eating attitudes were positively correlated. The frequency of binge eating was 50% in atypical depression and 8% in non-atypical depression. Self-destruction was detected in 15% of atypical depression and 8% of non-atypical depression cases. There was no correlation between impulsivity and EAT score.

Eating attitudes appears to be associated with depression and anger rather than impulsivity in atypical depression.

**Keywords:** impulsivity, atypical depression, obesity

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## Challenging of childhood onset obsessive-compulsive disorder (OCD): A case of OCD augmented with N acetyl cysteine (NAC)

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**Introduction:** Many children with OCD fail to respond adequately to standard therapies. There are studies related to glutamatergic neurotransmitter system promising as an alternative treatment to OCD. This report revealed a 12-year old girl, diagnosed by OCD and treated with N acetyl cysteine (NAC) as an adjunctive therapy.

**Case:** A 12 year-old girl, sixth grade, admitted with her mother by complaints of repeated questions and anxiety after a stressor. Premorbid status was normal, symptoms such as thoughts concerning having an illness, hand-washing rituals, seeking reassurance. Family history was positive.

A was diagnosed with "OCD" according to DSM-5 criteria and qualified as "severely ill" and medicated with sertraline (50 mg/day) then 75 mg/day. Because developing of irritability, aggressive behaviors and increment of talking after 75 mg/day dose was decrease to 50 mg/day and risperidone (0.5 mg/day, then 0.75 mg/day then 1 mg/day) was added to sertraline. In 7<sup>th</sup> month, CBT (a session/week) added the treatment but no improvement was observed in her symptoms of OCD. Venlafaxine treatment was planned and started at 37.5 mg/day, then 75 mg/day and 150 mg/day. The risperidone treatment was continued. After three weeks with 150 mg/day Venlafaxine, excessive irritability and aggressiveness were added to her complaints again and no improvement was observed in her symptoms of OCD then she discontinued her treatment voluntarily, then A., dropped out. One or two months later, she was admitted to our clinic again. Supplementation of NAC was planned and started at 900 mg/day and increased to 1800 mg/day after a week. At the end of the second week, her symptoms of OCD were observed to decline and her functionality improved. No side effects were faced. The dose of NAC was increased to 2700 mg/day at the beginning of third week. In her examination after eight weeks, an apparent improvement was observed in the findings and the case was qualified as "borderline mentally ill". The treatment of our case is continuing with 2700 mg/day NAC.

**Discussion:** Importance of this case is because of the difficulties in management of A.'s OCD treatment. Agents based on serotonin/noradrenaline neurotransmitters did not be able to useful for A and we switched to glutamatergic pathway to treat OCD via NAC. In our case NAC was effective and tolerable and promising for other OCD cases with no efficient improvement with SSRI/SNRI agents. Future investigations are needed to clarify the role of NAC in childhood OCD.

**Keywords:** childhood onset OCD, NAC, management

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## Is 'Food Addiction' valid?

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Obesity and overeating have become a major health problem and epidemic. The rise in global obesity rates over the last three decades has been substantial, especially in the developed and developing countries. The American Medical Association accepts obesity as a disease at 2013. There is still a good deal of uncertainty about why people eat more than they need.

There are many theories as to why we overeat; some prominent theories: The existence of the "thrifty gene", which has primed us to eat whenever food is present and was useful in times of scarcity. "Obesogenic environment" in which calorie dense food is constantly available and sedentary life style. Lack of "willpower"; until recently, many believed overeating and obesity were caused by lack of self-control. The "food addiction" model of overeating has been proposed to help explain the widespread advancement of obesity over the last 30 years. 'Food addiction' has been implicated as a potential contributor to the obesity epidemic."

Although substances like alcohol, cocaine and nicotine are widely popular and central to the study of addiction and (Substance Use Disorders) SUDs; growing interest is emerging from compulsive activities that are not clearly characterized as SUDs such as shopping, internet, sexual behaviors and compulsive overeating. Drug addiction and obesity appear to share and overlap several properties on domain of phenomenology, shared neurobiology, and treatment. Food has both homeostatic and hedonic components, which makes it a potent natural reward.

Some findings supporting that food can be addictive: Sugar stimulates the brain's reward centers through the neurotransmitter dopamine exactly like other addictive drugs. Brain imagining shows that high-sugar and high-fat foods work just like heroin, opium, or morphine in the brain. PET imaging shows that obese people and drug addicts have lower numbers of dopamine receptors, making them more likely to crave things that boost dopamine.

A combination of high-sugar and high-fat foods produces overeating and obesity in animals. But and importantly, these findings have not been replicated in humans. Spinach, leek and broccoli are not addictive, but cookies, chips, or soda absolutely can become addictive drugs. That may be "industrial food addict" or "palatable food addict" or "hedonic eating". Researchers argue that instead of thinking of certain types of food as addictive, it would be more useful to talk of a behavioral addiction to the process of eating and the "reward" associated with it. Another hypothesis: "Food is not addictive but eating is"; gorging is psychological compulsion.

Although there are phenotypical overlapping and similarities; neurobiological evidences of food addiction are inconsistent and conflicting.

Validation of food addiction at the neurobiological level is absolutely critical, but there are inconsistencies in the evidence from humans suggesting that caution should be exercised in accepting food addiction as a valid concept.

Validation of food addiction at the neurobiological level is absolutely critical, but there are inconsistencies in the evidence from humans suggesting that caution should be exercised in accepting food addiction as a valid concept.

**Keywords:** addiction, eating, food, obesity

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## Changes in eating disorder diagnoses in DSM-5

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DSM-5 contains substantial changes to eating disorder diagnoses. Feeding and Eating Disorders are for the first time subsumed in a single category in DSM-5. Previously encompassing "feeding disorder of infancy or early childhood" in the DSM-IV, Avoidant/Restrictive Food Intake Disorder (ARFID) was introduced into the nomenclature in the DSM-5, and its former criteria adjusted to include a wider variety of presentations. Anorexia and bulimia nervosa were recognized as the two main eating disorders in DSM-IV, with a third 'eating disorder not otherwise specified' (EDNOS) diagnosis for eating disorders of clinical significance that did not meet the diagnostic criteria for anorexia or bulimia nervosa. In DSM-IV the EDNOS classification was the provisional diagnosis of Binge Eating Disorder (BED), which is characterized by recurrent binge eating without the inappropriate compensatory behaviors to counteract the effects of binge eating on weight.

BED became formally recognized as an ED and as an autonomous diagnosis with the publication of the DSM-5 and notably the respective

thresholds for frequency and duration criteria for bingeing have been lowered. To meet diagnostic criteria, binge episodes should occur at least weekly, on average, over duration of 3 or more months. Unlike BN, however, BED is not associated with recurrent inappropriate compensatory behaviors to prevent weight gain. The Binge Eating Disorder (BED) was established as the third classical eating disorder in addition to Anorexia Nervosa (AN) and Bulimia Nervosa (BN).

BED is distinguished from no pathologic overeating by several possible associated symptoms, including rapid eating, eating irrespective of hunger or satiety, eating alone because of shame, and negative feelings after a binge. Individuals affected by Binge Eating Disorder (BED) show important lower quality of life and higher psychological distress compared to the non-BED obese population. Like BN, BED is characterized by recurrent and persistent binge-eating. DSM-5 is intended to increase awareness of the significant differences between overeating and BED.

In DSM-IV Anorexia Nervosa the criterion requiring amenorrhea, or the absence of at least three menstrual cycles was deleted in DSM-5. This criterion cannot be applied to males, pre-menarche females, females taking oral contraceptives and post-menopausal females. In some cases, individuals exhibit all other symptoms and signs of anorexia nervosa but still report some menstrual activity. The newly revised DSM-5 criteria reduce the frequency of binge-eating and compensatory behaviors that people with bulimia nervosa must exhibit, to once a week from twice weekly as specified in DSM-IV.

Relaxing the diagnostic criteria for BN and AN and recognizing BED decreased the proportion of EDNOS (from 45.1% to 26.1%). The DSM-5 differentiates ED groups more effectively than the DSM-IV. These changes will allow for more accurate diagnoses and better treatment plans for individuals affected by eating disorders.

**Keywords:** eating disorder, diagnose, DSM-5

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## The role and importance of MiRNA molecules in child psychiatry

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MicroRNAs (miRNAs) are a class of small non-coding RNAs about 22 nucleotides long, generated from long precursor RNA transcripts. miRNAs regulate gene expression primarily through post-transcriptional gene silencing by complementary binding to their target mRNAs. Abnormalities in miRNA expression and miRNA-mediated gene regulation have been observed in a variety of neurodevelopmental disorders (1). Autism spectrum disorders (ASDs) are a heterogeneous group of neuropsychiatric disorders with core clinical symptoms as qualitative impairment in social interaction plus repetitive and stereotyped behaviors. Up-regulation in the 22q11.2 microduplication, miR-185 gene within in the 22q11.2 duplication, hsa-miR-211 -located at 15q13.2-q13.3- was altered in ASD cases (2). Rett syndrome (RTT) is a neurodevelopmental disorder which occurs almost exclusively in girls and ninety-nine percent of affected girls are sporadic cases. Mutations in the gene encoding methyl-CpG binding protein 2 (MeCP2) have been associated with many Rett syndrome (RTT) cases and are thought to be the main cause of RTT. Mecp2 seems to be an important component of a miRNA-modulated regulatory. miR-132 is a miRNA that controls Mecp2 isoform in primary cortical neurons. It was suggested that miR-132 might exert homeostatic control over Mecp2 translation. Deficits in Mecp2 expression may lead to the disruption of miRNA regulatory machinery, which may contribute to clinical phenotypes observed in Rett syndrome (1). Fragile X syndrome (FXS) results in a spectrum of cognitive and behavioral manifestation including deficits in speech and language skills similar to the ones seen in ASD patients. FXS is caused by the repeat expansion of a single trinucleotide gene sequence (CGG) in the 5'UTR of FMRP, which leads to the failure of FMRP gene expression. FMRP protein was found to associate with Argonaute-2 (Ago2) and Dicer, both of which are critical components of miRNA pathway. Studies indicated that FMRP gene, executes its function via miRNA-modulated regulatory networks (1). A connection between miRNA and Tourette Syndrome (TS) was first observed in a study which showed that the expression of mir-189 and SLITRK1 mRNA are overlapping in many neuroanatomical circuits that are most commonly implicated in TS (3). A potential connection between miRNAs and Down Syndrome (DS) phenotypes was recently explored and it was suggested that over-expression of the miRNAs on chromosome 21 may cause improper repression of MeCP2, which in turn contributes, in part, to the neural deficits observed in the brains of DS individuals (1).

### References:

1. Xu B, Hsu PK, Karayiorgou M, Gogos JA. MicroRNAs Dysregulation Neuropsychiatric Disorders and Cognitive Dysfunction. *Neurobiol Dis.* 46(2):291-301.
2. Talebizadeh, Z., Butler, M.G., Theodoro, M.F., 2008. Feasibility and relevance of examining lymphoblastoid cell lines to study role of microRNAs in autism. *Autism Res.* 1, 307.
3. Abelson, J.F., Kwan, K.Y., O'Roak, B.J., et al., 2005. Sequence variants in SLITRK1 are associated with Tourette's syndrome. *Science* 310, 317-320.

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## Management of treatment resistant cases in disruptive behavioral disorders

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Attention deficit hyperactivity disorder (ADHD) is one of the most common neurodevelopmental disorders among children and adolescents. The prevalence has been reported to be between 3 and 5%. Symptoms of the disease are characterized by an attention deficits accompanied with impulsivity and hyperactivity. For the treatment of ADHD, a multimodal therapy consisting of medication and behavioral treatment is recommended. Methylphenidate is accepted as first-line medication. Atomoxetine is preferred in cases where existing comorbidities, like potential drug abuse, tic disorders and anxiety disorders are diagnosed. Approximately 80% of ADHD patients show comorbid psychiatric disorders. The most common comorbidities are oppositional defiant disorder (ODD), conduct disorder (CD), depression, anxiety disorders, learning disorders. Comorbidities have to be taken into account while treating ADHD.

Oppositional and aggressive behaviors are common in school-age children. Adolescents may tend to test limits, argue with adults, and break rules. These behaviors are usually developmentally appropriate. If they are severe and persistent, they may present as ODD or CD which are often comorbid with ADHD. Children and adolescents with severe disruptive and aggressive behavior can cause safety risks, disturb family functioning, and experience impairments in their emotional, social development.

First-line treatment for children and adolescents with severe oppositional behavior, conduct problems, and aggression should involve psychosocial interventions. But when psychosocial interventions are inadequate, consideration of pharmacotherapy is warranted. Although aggression, violence, and impulsive behavior are among the most common and important presenting problems in child and adolescent psychiatry, the psychopharmacology practice of aggressive, antisocial, and disruptive behaviors is still weak. The clinical implication is that when medication is being considered to address disruptive and aggressive behavior in the context of attention deficit hyperactivity disorder, a psychostimulant should usually be used first. If children and adolescents with attention deficit hyperactivity disorder and ODD or CD have suboptimal response or tolerability with ADHD medications, the next medication option with the most evidence for treating disruptive and aggressive behavior is risperidone, which received a conditional recommendation regardless of patient IQ. In the treatment of disruptive or aggressive behavior, adverse effects of antipsychotics and mood stabilizers often outweigh the efficacy. Three non-psychostimulant medications used for ADHD (atomoxetine, guanfacine, and clonidine) have also got conditional recommendation for treating the associated behavioral problems in children with attention deficit hyperactivity disorder.

In this presentation I will summarize the current treatment options in treatment resistant youths with disruptive behavior disorders including ADHD, ODD, and CD.

**Keywords:** ADHD, disruptive behavior disorders, treatment resistance

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## Dealing with treatment-resistant obsessive-compulsive disorder cases

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Obsessive-compulsive disorder (OCD) is a psychiatric situation characterized by permanent and undesirable intrusive thoughts, ideas and images (obsessions) and recurrent behaviors or mental acts (compulsions). Once considered to be uncommon in youth, epidemiological studies have found an estimated prevalence of 0.25%–4% among children and adolescents. Left untreated, OCD often continues until adulthood and leads to many unfavorable results and cause prominent functional deterioration across multiple areas, including at home, school and socially. Therefore, potent treatment of pediatric OCD is very important. Providentially, important developments have been made over the past two decades in developing and empirically evaluating treatments for OCD in children and adolescents, which is usually treated with selective serotonin reuptake inhibitors (SSRIs) and/or clomipramine and cognitive behavioral therapy (CBT). While the majority of young with OCD respond well to these treatments, a significant proportion is left with clinically significant residual symptoms. In clinical practice, the implications "treatment-refractory" and "treatment-resistant" are often used for same meaning but are not proper. Treatment-resistant OCD has been described as the failure of at least two adequate therapeutic trials of SSRIs. Treatment-refractory OCD as the patients who can be viewed along a continuum in stages from simply not improving sufficiently on a single first-line intervention

(CBT or SSRI) to being severely symptomatic despite treatment with multiple SSRIs and/or clomipramine, CBT (while on a therapeutic dose of an SSRI) and least two atypical antipsychotics as augmentation strategies, with a demonstration of 25% decrease of Yale-Brown Obsessive Compulsive Scale (Y-BOCS) scores or, despite 25% decrease in Y-BOCS score, by still showing considerable impairment from their illness.

A several studies have attempted to detect predictors of treatment response in an attempt to be a whale at the mechanisms underlying treatment resistance/refractory. Probably, most interest has been given to the influence of comorbidity on treatment response. Comorbidity is customary in childhood OCD, with up to 80% meeting diagnostic criteria for a comorbid psychiatric disorder. Although some comorbidity, such as depression and anxiety disorders, does not appear to affect response to CBT or SSRIs/clomipramine, others such as comorbid tic disorders and prominent hoarding symptoms are disposed to have a poorer response to SSRIs. Externalizing disorders such as oppositional defiant disorder and conduct disorder, and attention deficit hyperactivity disorder have been demonstrated to predict an insufficient response to SSRIs and CBT. The other factors are insight into OCD symptoms and family accommodation.

In conclusion, most critically, it needs to be determined whether children have received a sufficient dose and duration of the most effective element of medical treatment and CBT—exposure and response prevention—for an adequate. The other conditions are comorbidity and misdiagnosis. Nevertheless we do not have enough knowledge about its pathophysiology; treatment alternatives are unfortunately inadequate yet. Therefore, many efforts are needed to know its character and treatment.

**Keywords:** obsessive-compulsive disorder, treatment-resistant, child/adolescent

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## Separation anxiety in adulthood and DSM-5

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Separation from a key attachment figure is commonly considered to reveal anxiety as a part of normal developmental process in childhood. This anxiety occurs as a reflection of a normal physiological response for survival, as well as a formation of the psychic structure of child-mother interaction. From the theoretical standpoint, Freud assumed the birth as an experience of separation from mother and following separation situations as fear trigger. Bowlby emphasized the role of child's attachment to primary caregiver. He suggested three stages for separation process that referred as protestation, desperation and detachment in childhood. He argued the impact of early separations in the development of vulnerability to depression, as well as primary attachment disruption for the reason of anxious attachment.

Disturbance of normal development may impair functionality during separation process. Followed by that accumulated clinical experiences and consensus knowledge, separation anxiety disorder (SAD) was located in DSM-3 for the first time. SAD took place in the section "Disorders usually First Evident in Infancy, Childhood, or Adolescence" and remained in this position till DSM-5. Now SAD is in the section of "Anxiety Disorders". Symptom constellations remain by a majority but appropriate modifications of symptom patterns were implemented in DSM-5. For example, patients with adult-onset SAD may encounter the symptoms for attachment figures of spouse and own child as well in addition to their parents. Avoidance and safety seeking behavior may occur in the workplace for adults as at school in children. Furthermore, in DSM-5 the diagnostic criterion no longer exists that age of onset should be before 18 years as in the previous versions of DSM. The duration of disturbance has been still at least 4 weeks for children but a new duration criterion "typically lasting for 6 months or more" has been added for adulthood.

In addition to mentioned above, adult SAD patients surely show more mature expressions such as being in constant contact with attachment figures and effort of keeping them in a safety area, whereas children with SAD express their anxiety with crying, tantrums, and school phobia.

**Keywords:** anxiety, separation anxiety, adult

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## Hypersomnia management of bipolar disorder during depressive episode

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Psychiatric disorders are characterized by frequent sleep disturbances in both qualitative and quantitative terms, which are closely related to the progress of the disease. Sleep disorders may present themselves as symptoms that match the diagnostic criteria for psychiatric disorders, and they also bear significance as prognostic indicators for the course of the disease. The detection of changes in the sleep structure is considered to offer benefits for the progress of the disease and enable us to predict response to the treatment. The manic episode is characterized by a reduced need to sleep, whereas the depressive episode is marked by complaints of sleep deprivation or oversleeping. The reduced need to sleep is usually a prodromal symptom for the manic episode. On the other hand, the depressive episode is usually marked by sleep deprivation or exhaustion. 80-85% of depressive patients report sleep deprivation. However, the hypersomnia complaint is rather predicted for cases with bipolar disorder or atypical depression. Nevertheless, some consider this situation a subjective symptom triggered by perceived low energy level that is associated with depression or exhaustion. The multiple sleep latency test conducted to detect excessive sleepiness revealed no difference between healthy individuals and bipolar depressive patients accompanied by hypersomnia. Yet, compared to healthy individuals, some polysomnographic studies demonstrated a higher prevalence of respiratory disorders in patients with bipolar disorders. Daytime hangover effects of psychotropic drugs and their metabolic and physiological side effects may cause sleep-related complaints. Also, the restless legs syndrome and periodical sleep movement disorder, which may be triggered by lithium and certain anti-psychotic drugs, should also be taken into account. These sleep-related clinical cases degrade sleep structure and quality, and may thus trigger hypersomnia and result in worsened depressive symptoms. Determination of potential factors for hypersomnia and formulation of relevant treatment strategies are critical for the bipolar depression. In the depressive episode of bipolar depression, hypersomnia management is carried out through psychopharmacological treatments, bright light therapy as well as various approaches to regulating psychotherapeutic and social rhythm.

**Keywords:** bipolar disorder, depression, hypersomnia

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## Analytical and neurobiological approaches in the etiology of delusional misidentification syndrome

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The delusional misidentification syndromes (DMS) are characterized by a belief in duplicates and replacements. The DMS comprise signs and symptoms that are often viewed as part of other disorders, most commonly schizophrenia (paranoid type), affective disorders, organic brain disorders (e.g., ischemic brain damage), traumatic head injury, dementia syndromes, and even typhoid fever. Most known subtypes of DMS are Capgras and Fregoli syndromes. During the past few decades, along with psychopathologic and neuroimaging research, there have been increasing studies toward explaining neuropsychiatric and cognitive neuropsychiatric etiology for delusional misidentification syndrome. The DMS have been explained since the first descriptions on the basis of a variety of pathogenetic hypotheses. Historical dichotomy of psychiatry also seen in the theories for explaining the etiology of DMS as functional versus organic. Neuropsychological, cognitive, and neuroanatomic findings converge and support the hypothesis that DMS symptoms are produced at least in part by a damaged or dysfunctional brain, predominantly in the right hemisphere. Although often described in relation to psychotic states including schizophrenia, it is, nevertheless, widely considered that these syndromes have an anatomical basis because of their frequent association with organic brain disease. There is evidence that DMS are associated specifically with organic lesions affecting limbic structures and also involving the frontal and parietal lobes. Right-sided lesions predominate in the etiology and, the common link between schizophrenia, schizophrenia-like psychosis of epilepsy, and DMS appears to be involvement of the limbic structures in their pathophysiology. Joseph (1986) suggested that organic causes may produce disconnection between right and left cortical areas that decode afferent sensory information. The result of this would be lack of integrated representation of the outside world and adoption of two separate, physically identical objects. The neuropsychiatric aspects of the DMS appear with increasing frequency in the DMS literature, as neuropsychiatry encompasses symptoms that lie in the gray zone between neurology and psychiatry. Researchers have

attempted to link psychopathology with measurable brain deficits. Afterwards, the questions of neuropsychiatric/neurologic or organic disease have the same origin as one that arises in the context of psychiatric illness. Although misidentification syndromes have been reported in neurologic patients and in patients with organic brain disease, most instances occur in psychiatric illness. Additionally, in psychiatric illness, patients have no insight into their misidentifications; hence, the misidentifications are termed delusional. In conclusion, psychoanalytical and neurobiological approaches and findings would aid for enlightening of this gray zone of psychiatry and neurology, also awareness about theories and research studies would help to improve clinical vision.

**Keywords:** misidentification syndrome, delusions, neurobiology

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## Anxiety disorders comorbidity in bipolar disorder: a meta-analysis

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Patients with a bipolar disorder (BD) diagnosis have a threefold increased risk to be diagnosed with any anxiety disorder (1) and anxiety disorders are one of the most frequent disorders that are comorbid with BD (2). In addition, anxiety disorders comorbidity may decrease the likelihood of remission (3), worsen the prognosis of BAD, elevate the risk of suicidal ideation and result in less response to anticonvulsant agents. Comorbidity of anxiety disorders may also be related to childhood maltreatment, may need a different management strategy and may have limited treatment options. In order to determine the prevalence of anxiety disorders comorbidity in bipolar disorder patients and increase the awareness of this significant co-occurrence, we have conducted a systematic research of PubMed by using bipolar disorder, affective psychosis, generalized anxiety disorder, panic disorder, social phobia, and obsessive compulsive disorder and anxiety disorders as keywords to search in title/abstract. Abstracts of all found articles, which were published until September 2015, were carefully read to distinguish the associated articles. A total of 419 abstracts were found to be related with bipolar disorder and anxiety disorders comorbidity in adults and child and adolescent populations. After inspecting all articles for their quality and relevant information, data was extracted from the relevant articles for required outcome measures. Comorbidity of lifetime and current anxiety disorders with subtypes of bipolar disorder as bipolar I, bipolar II etc. were noted. In this presentation, the results of this highly comprehensive meta-analysis will be shared.

### References:

1. Pavlova B, Perlis R et al. Lifetime prevalence of anxiety disorders in people with bipolar disorder: a systematic review and meta-analysis. *Lancet Psychiatry*. 2015;2(8):710-7.
2. Asaad T, Okasha T et al. Correlates of psychiatric co-morbidity in a sample of Egyptian patients with bipolar disorder. *J Affect Disord*. 2014;166:347-52.
3. Kim SW, Berk L et al. Impact of comorbid anxiety disorders and obsessive-compulsive disorder on 24-month clinical outcomes of bipolar I disorder. *J Affect Disord*. 2014;166:243-8.

**Bulletin of Clinical Psychopharmacology 2016;26(Suppl. 1):S25**

## Success in long-term treatment and treatment compliance to treatment in schizophrenia

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Although the clinicians are pessimistic about recovery and even remission in schizophrenia, long term follow up results prove that remission is a realistic target at least for the early stages of schizophrenia. Expectations regarding the outcome of treatment of schizophrenia are increasing, and achievement of a stable state of remission, along with reduction of acute symptomatology, is now a primary target of treatment. The rate of remission after the first episode of schizophrenia was found to vary between 23% and 82.2% and assumed to depend on several variables. In our First episode follow-up Project, Ninety-three FES patients were followed for at least 12 up to 12 years (mean=58.4months). Fifty-six (59.5%) patients met the remission criteria in the first 24 months of the follow-up period, but 40

(71.5%) of these patients could not maintain their status. However, 23 (57%) of these patients later met the remission criteria again. The remission group patients achieved a higher rate of employment both in the first year and overall. In the logistic regression analysis, lower negative and higher positive symptoms at admission, lower positive symptoms at month 3 of the follow-up, medication compliance in the first 6 months, and occupational status during the last month before admission were found related to remission status. Our findings are suggested keeping remission status is as important as meeting remission. As we found that nonadherence to treatment was significantly higher in no remission group, medication adherence is closely related to both short and long term outcome.

In a recent study analyzing follow up results of both first episode (EUFEST) and chronic (CATIE) schizophrenia groups, it has been reported that drug/substance use at 6<sup>th</sup> month, lack of insight, and hostility at 6th month were related to medication nonadherence. So it seems critical to treat the patients with alcohol/substance use and lack of insight by using long acting injectable antipsychotics. Another point to maintain remission status is keeping in mind that lowering dose to minimally effective dose is not a primary treatment goal. After the acute period ends with a successful treatment majority of the patients begin complain more about the side effects of antipsychotics. In this case psychiatrist's first strategy would be lowering the dose as much as possible. However, in recent study it has been reported that 50% dose reduction after 4 weeks or 26 weeks was associated with significantly more relapses than keeping the initial dose.

However, it is clear that without therapeutic support, it is almost impossible to achieve remission in long term treatment of schizophrenia. Even to establish a successful treatment with long acting antipsychotics, a supportive psychotherapeutic approach is necessary. Clinician should discuss the advantages and disadvantages of using long acting antipsychotics, including detailed screening of potential side effects. Rather than targeting "creating insight" towards his/ her illness, clinician should try to focus on understanding the patient's conditions, his/ her concerns, weaknesses and strengths. If a therapeutic relationship can be established based on empathy and trust, it would be possible to establish adherence to treatment even in case of lack of insight.

**Keywords:** remission, medication adherence, long acting antipsychotics

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## Pregnancy and addiction

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Alcohol and substance use is a major health problem both in Turkey and around the world. The prevalence of smoking, drinking and substance use is known to vary based on ethnic roots and factors such as culture and religious beliefs. In particular, while substance use in women in Turkey is lower than global levels, it is higher in young women of childbearing age (TUBIM, 2013).

Studies on pregnant women demonstrate that while the frequency of substance use decreases during other times, it is still an important health problem. Smoking during pregnancy is associated with poor birth outcomes, including low birth weight, intrauterine growth restriction, placental abruption, and placenta previa.

Alcohol ingested during pregnancy can have deleterious consequences for the developing fetus, including fetal alcohol syndrome (FAS) and alcohol-related effects. Illicit drug use in pregnancy can have negative effects on the fetus including higher rates of prematurity, intrauterine growth restriction, placental abruption, neonatal withdrawal syndrome, and cognitive impairment.

Untreated, alcohol drinking, substance and tobacco use disorders could impact the health of both the mother and the fetus; it could also affect the care of both parties. Despite this, alcohol drinking and substance use in pregnancy are overlooked by most psychiatrists and gynecologists.

The purpose of this presentation is to research the frequency of alcohol, substance and cigarettes use, and associated factors, during the pregnancies and throughout the lives of women.

**Keywords:** pregnancy, addiction, smoking, women, substance, use

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## Is separation anxiety underlying the treatment-resistant panic disorder?

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The evidences are known that childhood separation anxiety disorder is associated with an increased risk of PD, with or without agoraphobia, in adulthood. In recent years, it is suggested that adult SAD (ASAD) is also related to PD. In a study, ASAD was diagnosed in half of the patients with PD (Pini 2014).

Two studies on the relationship between SAD and the treatment of PD has come to the fore. The first of these studies on Cognitive-Behavioral Therapy (CBT) and the other is related to resistance to drug treatment.

Aaronson et al. (2008) studied with participants who met criteria for PD with or without agoraphobia. Of those, 256 completed 11 sessions of CBT. Treatment response rate was 65.6%. Lower score on the Adult Separation Anxiety-Check List (ASA-CL) were associated with higher rates of response to CBT. Because a score greater than 21 on the ASA-CL is thought to identify a categorical diagnosis of adult separation anxiety disorder they dichotomized the ASA-CL ( $\leq 21$ ,  $>21$ ) to continue to predict worse outcome. The estimated OR indicated that patients with ASAD had 3.74 times more likely to be non-responders. Of the 117 (45.7%) patients who had at least 1 comorbid condition including generalized anxiety disorder (55.6%), major depressive disorder or dysthymia (41%), specific phobia (25.6%) and social phobia (23.9%). With the exception of adult separation anxiety disorder, no comorbid diagnosis was associated with response outcome. They concluded that patients experiencing adult separation anxiety disorder are less likely to respond.

Miniati et al. (2012) investigated if panic-agoraphobic spectrum factors, including "separation anxiety" predict treatment outcome in patients with PD. They studied with participants who met criteria for PD (n=57) completed baseline assessment and 12 months follow-up. Twenty eight patients (48.1%) achieved remission during the follow-up period. In a logistic regression model, controlling for baseline severity, gender and age, only the last month PAS-SR "separation anxiety" factor was associated with a lower likelihood of remission. They suggested that signs and symptoms of separation anxiety in adulthood are predictors of poor treatment outcome in patients with PD.

As a result, ASAD might be a distinct comorbid clinical syndrome, complicating and affecting the course of PD, and also predicting poorer response to CBT and medication. So, ASAD should become routine of clinical assessment of patients with PD. It is likely that a better psychopathological characterization of patients may inform treatment selection, and result in better treatment outcome.

**Keywords:** separation anxiety, panic disorder, resistant to treatment

### References:

1. Aaronson CJ et al. (2008). Predictors and time course of response among panic disorder patients treated with cognitive-behavioral therapy. *J Clin Psychiatry*. 69(3):418-24.
2. Miniati M. et al (2012). Predictors of response among patients with panic disorder treated with medications in a naturalistic follow-up: the role of adult separation anxiety. *J Affect Disord* 136(3):675-9
3. Pini et al. (2014). The relationships among separation anxiety disorder, adult attachment style and agoraphobia in patients with panic disorder. *Journal of Anxiety Disorders* 28: 741–746.

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## Forensic reporting of a case of sexual abuse which was broadcast in "PERISCOPE"

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**Case:** This male case aged 14 years and two months was the first of two brothers. He was referred to Sakarya University Department of Pediatric Psychiatry in 2015 under custody of policemen for a forensic report, in order to determine if he was aware of the legal meaning and consequences of his act and if he had developed the ability to guide his behaviors. He was at 9<sup>th</sup> Class, with a normal school success level. He reported sexual relationship with his 9-years-old brother for a total of 3 times, and on the last time he reported that their two cousins were also present in the room and they experienced this during live broadcast on periscope. He added that apart from him, their two cousins also had anal sexual intercourse with his brother He reported that he very much regretted doing these things, that he was presently in shock, started having sleep disturbances after these incidents were uncovered, and losing his temper quickly, and continually

yelling at home. The forensic investigations of this case had started after INTERPOL informing Turkish Authorities after the recordings of periscope were shown at a porn website in the USA. He was concluded to have a normal mental capacity, after the interview. Clinically, a working diagnosis of Attention Deficit and Hyperactivity Disorder and comorbid conduct disorder were considered. An interview with the parents of this case was asked, along with the inquest file, after which definite conclusions could be reached in the forensic report. Also, an order for social investigation of this child was given and health precautions to be taken were advised.

**Discussion:** In this case presentation, a boy at the age of 14 years 2 months who had sexually abused his younger brother and had broadcast this abuse at the "Periscope" is presented and it's aimed to discuss forensic reporting of a case of sexual abuse which was broadcast in "periscope".

**Keywords:** adolescence, periscope, sexual abuse

**References:**

1. Akyuz, E. Çocuk hukuku. Çocukların hakları ve korunması. Ankara: Pegem Akademi Yayınları (2010).
2. Yavuzer, H. Çocuk ve Suç, İstanbul: Remzi Kitabevi, 8. (Basım, 1996).
3. Caldwell RM., Wiebe RP, Cleveland HH. The influence of future certainty and contextual factors on delinquent behavior and school adjustment among African American adolescents. *Journal of Youth and Adolescence*. 2006;35:587-598.
4. Galli V, McElroy SL, Soutullo CA, Kizer D, Raute N, Keck PE, McConville B. The psychiatric diagnoses of twenty-two adolescents who have sexually molested other children. *Comprehensive Psychiatry*. 1999;40:85-88.

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## The comparison of available stimulant formulations to treat ADHD in Turkey

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Untreated attention deficit hyperactivity disorder (ADHD) is very often associated with poor academic achievement, low occupational status, increased risk of substance abuse and delinquency. Due to its well-documented efficacy and safety, the stimulant methylphenidate (MPH) has been a mainstay of treatment for ADHD for many years.

Immediate release (IR) MPH must be given at least twice a day due to its short duration of action, However, this results in peaks and troughs in plasma concentrations, which might lead to 'waxing and waning' of behavioral symptom improvement throughout the day and potentially to rebound. Multiple dosing can be problematic, as it can cause adherence issues and complications related to privacy, stigmatization by classmates, potential abuse, and accountability of the school administration.

To overcome these problems, long-acting formulations of MPH have been developed. Two long acting formulations are available in Turkey. Osmotic-release oral system (OROS) MPH dissolves within 1 to 2 hours and releases 22% of the total dose of MPH. The remaining 78% of the dose is osmotically controlled and released over 10 hours. Once-daily treatment with OROS MPH has been shown to be at least as effective as IR. Extended-release (ER) formulation contains equal proportions of IR (50%) and slow release MPH (50%) and combines the advantages of both IR and ER formulations of MPH. This once daily ER-MPH formulation had duration of action of about 8 hours in an analog classroom setting, with efficacy corresponding to twice-daily administration of IR MPH.

Although stimulants for the treatment of ADHD have been well studied, there have been few head-to-head comparisons of long acting drugs. There are benefits for at least some children from preparations that can be given once daily. They can be seen as superior to placebo and some are equivalent to multiple doses of immediate-release methylphenidate. ADHD patients on long-acting preparations may be more likely to persist on their medication than those prescribed IR MPH. The advantages of IR-MPH are its flexibility and management of doses that can be given during the day. There is possibly a lower abuse potential for OROS MPH related to properties inherent in the technology compared to other MPH-ER formulations. ER formulation's capsules can be opened and the contents sprinkled on food. This helps some children who have difficulty swallowing. Clinical practice will often begin with a decision about profile of effect desired across the day. Loss of control in the evenings or preference for evening control by the family will indicate the longer acting; insomnia may suggest the shorter-acting one. The smaller initial effect of OROS MPH may mean that morning control is achieved at the price of greater overall exposure to methylphenidate compared to the ER formulation. According to Döpfner et al, ER-MPH with a higher IR component than OROS-MPH and an equivalent daily dose was more effective than OROS-MPH in reducing ADHD symptoms during the natural setting of a regular school morning.

**Keywords:** ADHD, stimulant formulations, efficacy, side effect

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## Cognitive assessment interview in schizophrenia patients: Practical applications

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Cognitive impairment is associated with loss of function in daily life for patients with schizophrenia. It is also found to be related with improvement in clinical symptoms and functioning. Basic cognitive areas impaired in schizophrenia are attention (vigilance), executive functions, long-term memory, learning, working memory, and verbal fluency. Long term memory, learning, and attention skills are shown to be more important than positive and negative symptoms of schizophrenia in predicting functionality.

New and practical tools are needed to evaluate the efficacy of any therapeutic intervention on cognitive symptoms. Current batteries of neuropsychological testing are generally not easily accessible: they are also expensive and take a long time. Ventura et al. developed the Cognitive Assessment Interview (CAI) in 2008. The CAI emerged by gathering and adaptation of Schizophrenia Cognition Rating Scale (SCoRS), and Clinical Global Impression of Cognition in Schizophrenia (CGI-CogS)

Rehabilitative endeavors in schizophrenia have picked up pace after community mental health centers became widespread in Turkey. There is a need for convenient tools to assess these rehabilitation practices in addition to assessing the neurocognitive impact and functionality effects of the treatments given by the clinician. Therefore we aimed to establish the validity and reliability of the Turkish version of Cognitive Assessment Interview.

'CAI is a 10-item scale completed by the interviewer during interviews with the patients and their relatives (informants) where each question is given a score ranging from 1 to 7. Patient's, relative's and the interviewer's assessment are scored separately (Figure1). Rating scale is based on healthy people with similar education and sociocultural level. CAI assesses verbal learning, working memory, reasoning and problem solving, speed of processing, attention/vigilance, and social cognition. The scale gives the general severity of cognitive impairment scored from one to seven which is determined after these evaluations. High scores show poor cognitive status which has a negative impact on daily functioning. CAI also has Global Assessment of Functioning-Cognition in Schizophrenia section. This section is similar to DSM IV General Assessment of Functioning (GAF) scale'.

CAI-TR is a practical test which can be used to measure cognitive functions of patients with schizophrenia, which has a short administration time and is an easily applicable form which is both valid and reliable.

This presentation is practice of application of CAI-TR and contains parts from the article/study Reliability and validity of the Turkish version of cognitive assessment interview (CAI-TR).

**Keywords:** schizophrenia, cognitive impairment, CAI, CAI-TR

**Reference:**

1. Bosgelmez S, Yildiz M, Yazici E, Inan E, Turgut C, Karabulut U, Kircali A, Tas HI, Yakisir SS, Cakir U, Sungur MZ. Reliability and validity of the Turkish version of cognitive assessment interview (CAI-TR). *Bulletin of Clinical Psychopharmacology* 2015;25(4):365-80.

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## Inflammation markers and psychiatric disorders

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Over the last decades, clinical researchers have explored the idea that role of inflammation and dysfunction of the immune system could be a contributor to the pathophysiology of psychiatric disorders.

Up to recent years, Central Nerve System (CNS) is thought to be immune privilege area because of limited penetration of immune cells and mediators from systemic circulation by Blood-Brain Barrier (BBB), lack of parenchymal lymphatic vessels, low response to major histocompatibility complex expressions and inability of glial cells to maintain immune response in brain. In fact, the concept of immune privilege of CNS is relative and specialized, which consist of the explicit segregation of immune responses occurring in the brain from those in the peripheral immune system.

On the other hand, recent findings have revealed the presence of meningeal lymphatic system which enables immune cells and molecules to drain from brain into deep cervical lymph nodes. Also BBB enables cytokines to flow bidirectionally and immune cell penetration into

the CNS in pathological conditions. In addition to synthesis of cytokines within the brain by microglia and astrocytes, cytokines secreted in the periphery can also influence brain function via penetration through the blood–brain barrier. Because of the potential to reflect the status of CNS via peripheral circulation, researchers have primarily focused on circulating inflammatory markers such as cytokines. Pro-inflammatory cytokines such as Tumor Necrosis Factor (TNF)- $\alpha$ , Interferon (INF)- $\gamma$ , Interleukin (IL)-1 $\beta$ , IL-2 and IL-6, anti-inflammatory cytokines such as IL-4, IL-10, IL-12 and IL-13 were widely studied in psychiatric disorders.

Inflammation is also considered as one of the common pathway between psychiatric diseases and medical co-morbidities such as autoimmune, cardiovascular and metabolic diseases observed in psychiatric patients. Similarly, cognitive impairment in degenerative neuropsychiatric disorders is found in relationship with inflammation.

Evidence has accumulated to suggest that activation of immune response may be involved in the etiology of psychiatric disorders. Thus, immuno-inflammatory dysfunction in psychiatric patients may be a targetable component. Besides the anti-inflammatory and immunomodulatory effects of antidepressants, antipsychotics and mood stabilizers also anti-inflammatory strategies such as non-steroid anti-inflammatory drugs, anti-TNF- $\alpha$ , anti-IL-6, COX inhibitors etc. possibly may have a therapeutic role in treatment of psychiatric disorders. Add-on anti-inflammatory treatment represents encouraging but budding evidence for future therapeutic strategies.

Discovering novel inflammation biomarkers for psychiatric disorders may provide an opportunity to identify pre and post stages clearly and monitor progression of illnesses. It is hoped that new discoveries may be promising to explore new therapeutic strategies as mentioned above.

**Keywords:** brain, Inflammation marker, psychiatric disorder

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## DIVA: A case example for structured diagnostic interview for ADHD in adults

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Attention Deficit Hyperactivity Disorder (ADHD) once considered as a disorder limited to childhood and commonly remitted in adulthood; has been conceptualized as a lifelong disorder, indicating the need for treatment. Psychiatric curricula in Turkey also reflected this conception of the disorder, including such tenets as “ADHD is a psychiatric entity of childhood”, “this hyperkinetic condition that is mostly seen in boys responds well to treatments with psychostimulants”, and the belief that “the signs and symptoms remit in adulthood” (Aksoy 2015).

Within the scope of the literature regarding ADHD, studies report the persistence of the disorder into the adulthood with %66 of cases with residual symptoms and still %15 of the cases fulfill the diagnostic criteria.

In the psychiatric evaluation, ADHD can be consistently diagnosed in adults, recalling their childhood symptoms with current symptoms. Mostly this diagnosis should be confirmed with parents or family members who could give information about childhood histories of these subjects. An accurate diagnosis in Adult ADHD is always a difficult task for a clinician to complete; as it needs first a detailed psychiatric interview. The symptoms of ADHD should not be better explained by another psychiatric entity. A third person can confirm the diagnosis in order to prevent shadowing of the memory distortions which enable us a more objective history of the childhood not only based on individual memories, but also memories and information provided by parents and family members. An accurate diagnosis can be established by a clinical interview as long as the interview encompasses the four main diagnostic issues: (1) an early childhood onset of the disorder, (2) at least five of nine significant symptoms of inattention or hyperactivity, (3) meaningful impairment in at least two settings, and symptoms that are best explained by ADHD and not another psychiatric disorder.

Rating scales are important in assistance of the diagnosis but they should not be seen as a diagnostic tool. Rating scales could be phenomenologically evaluated as positive as some of the symptoms of other psychiatric disorder can simulate the symptoms adult ADHD so the clinician could not only rely on rating scales without psychiatric interview and history. Another important issue is the questionable reliabilities of psychiatric scales.

The diagnostic interview for ADHD in adults (DIVA) is based on the DSM-IV criteria and is the first structured interview for ADHD in adults. The DIVA is derived from a previous semi-structured interview for ADHD in adults developed by Kooij (2003). To explore the presence or absence of symptoms throughout life, unique examples for childhood and adulthood were presented. Each example indicates a dysfunctioning aspect of adult life regarding ADHD symptom. The DIVA can be administered with adults in the presence of the partner and family members in order to assess the patient’s medical history and collateral information obtained from relatives simultaneously. The time needed for administering the DIVA is one to one-and-half hours.

The fact that the DSM-IV criteria have not been phrased for adults, adults cannot be assessed because adults could not recognize themselves

in the disorder criteria developed for children, even the clinician address the relevance of current symptoms causing dysfunctioning. DIVA links concrete examples of adult daily life characteristics for description of Adult ADHD which prevents an underreporting of symptoms. Comorbidity in Adult ADHD is a rule not an exception however The DIVA does not provide appendix for comorbid conditions. But the clinician should always be aware of the fact that comorbidity evaluation is an important part of a psychiatric interview with Adult ADHD.

**Keywords:** adult ADHD, diagnostic assessment, structured interview

**References:**

1. Aksoy, U. M., Baysal, O. D., Aksoy, S. G., Tufan, A. E., & Maner, F. (2015). ATTITUDES OF PSYCHIATRISTS TOWARDS THE DIAGNOSIS AND TREATMENT OF ATTENTION DEFICIT AND HYPERACTIVITY DISORDER IN ADULTS: A SURVEY FROM TURKEY. *Nobel Medicus Journal*, 11(3).pgs 28-32
2. Murphy KR, Adler LA. (2004). Assessing attention-deficit/hyperactivity disorder in adults: focuson rating scales. *J Clin Psychiatry* 65(suppl 3):12–17.
3. Leonard A. Adler and David Shaw "Diagnosing Adhd in Adults" in "section 3 Assesment and Diagnosis of Adult ADHD" ADHD in Adults: Characterization, Diagnosis, and Treatment Book edited by Jan K. Buitelaar, Cornelis C. Kan and Philip J. Asherson Cambridge University press 2011

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## What is separation anxiety disorder?

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Separation anxiety disorder (SAD) is defined in the DSM-5 as developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached. The essential clinical features of separation anxiety are persistent and excessive worry about that losing major attachment figures or about possible harm (illness, injury, disasters, or death etc.) to them and experiencing an untoward event (getting lost, being kidnapped, having an accident, becoming ill etc.) that causes separation from a major attachment figure. Manifestations of this anxiety include persistent and excessive fear of or reluctance about being alone or without major attachment figures at home or in other settings and repeated complaints of physical symptoms (e.g., headaches, stomachaches, nausea, vomiting) when separation from major attachment figures occurs or is anticipated. And they can refuse to go out, away from home, to school, to work, or elsewhere because of fear of separation. SAD may also include repeated nightmares involving the theme of separation, and persistent reluctance or refusal to sleep away from home or to go to sleep without being near a major attachment figure. The disturbance must last at least 4 weeks in children and adolescents and at least 6 months in adults. The disturbance causes clinically significant distress or impairment in important areas of functioning (social, academic, occupational etc.). The disturbance is not better explained by another mental disorder. In the differential diagnosis, there must be considered that autism spectrum disorder, psychotic disorders, agoraphobia, generalized anxiety disorder and other anxiety disorder. Onset of SAD may occur at any time from preschool age to adult. SAD indicates periods of exacerbation and remission. In adulthood it can indicate avoidance of situations such as going away to college or moving away from attachment figures. SAD can occur with different symptoms with different ages. In this presentation, separation anxiety disorder according to the DSM-5 and its characteristics will be presented.

**Keywords:** separation anxiety disorder, DSM-5, definition

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## Reasons and treatment methods of school refusal behavior in children and adolescents

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School refusal (SR) is a psychosocial problem characterized by a child's or adolescent's difficulty attending school and, in many cases, substantial absence from school.

School Refusal Behavior (SRB) is a problem for mental health and education professionals because of its symptom severity and

heterogeneity as well as lack of consensus regarding inclusive classification strategies.

The Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2013) does not classify school refusal as a disorder, but youth presenting with school refusal are often diagnosed with one or more externalizing disorders such as oppositional defiant disorder (ODD) and attention deficit hyperactivity disorder (ADHD) and internalizing disorders such as anxiety disorders and depression. Anxiety disorders are observed in approximately 50% of representative samples of clinic-referred youth exhibiting school refusal.

A broad range of anxiety disorders is observed in these young people, including separation anxiety disorder, specific phobias, social phobia, generalized anxiety disorder, and panic disorder with agoraphobia. Even when full-diagnostic criteria for a particular anxiety disorder are not met, children and adolescents with school refusal may be diagnosed with anxiety disorder not otherwise specified and they might experience fear or anxiety related to school attendance at a level below the diagnostic threshold. Depression may also be observed among children and adolescents with school refusal, but it is not as prevalent as anxiety.

School refusal is a complex problem that is multiply determined by a broad range of risk factors, which interact with each other and change over time. Several authors have summarized the risk factors identified in the school refusal literature, differentiating between individual factors (e.g., behavioral inhibition, fear of failure, low self-efficacy, and physical illness), family factors (e.g., separation and divorce, parent mental health problems, overprotective parenting style, and dysfunctional family interactions), school factors (e.g., bullying, physical education lessons, transition to secondary school, and structure of the school day), and community factors (e.g., increasing pressure to achieve academically, inconsistent professional advice, and inadequate support services; Heyne, 2006. These may operate as predisposing, precipitating, and/or perpetuating factors.

A contemporary perspective posits that treatment aims to reduce the young person's emotional distress and increase their school attendance in order to help them resume a normal developmental pathway.

Due to the heterogeneity of SRB, there is no generalize treatment for this problem. The reasons of SR should be determined and then each individual should be treated specifically. Cognitive and Behavioral therapy (CBT) including exposure based intervention, relaxation training, social skills training, etc.), family therapy, family educating, giving information to school and medical treatment or combination of these items are some of the treatment methods.

**Keywords:** school refusal behavior, reasons and treatment, child and adolescent psychiatry

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## Things that fall through the cracks in substance psychosis relationships

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It is well-known that there are relationships between substance use and psychosis. Substances with psychotomimetic substance such as alcohol, cocaine, amphetamines, hallucinogens cannabis or synthetic cannabinoids are widely used and their use can provoke psychotic reaction resembling primary psychotic disorders. The use of cannabis and psychostimulant by young people has considerably increased over recent years, and age of first use has dramatically decreased in Turkey and rest of the World. The psychogenic effect of these substances seems to be originated from the dopaminergic activity in brain. Cocaine inhibits dopamine uptake, cannabinoids regulate its release and amphetamines stimulate dopamine release. This dopaminergic activity stimulates reward system which located mesolimbic area can cause of joy and pleasure. However increase of dopaminergic activity in mesolimbic circuits not only can give rise to pleasure but also can give rise to symptoms like schizophrenia. Schizophrenia patients are 4.6 times more likely to use and abuse substances than the general population and similar rates are reported for those individuals experiencing their first episode of psychosis. And also it is revealed that 25% of substance induced psychosis transform to primary psychosis in the one year follow up. Therefore it is difficult to distinguish the primary or substance induced disorder with the current knowledge. Some authors tried that and identified some distinguishing sociodemographic characters for substance induced psychosis and primary psychosis. The subject with substance induced psychosis had later age of onset, closer conjugal ties, were more frequently affected by an antisocial disorder, more frequently homeless, received less family support, more suicidal ideation, more possibility relative with substance abuse problem and presence of visual hallucinations, on the other hand the subjects with primary psychosis had severe psychopathology, less insight, more serious substance dependence. Furthermore psychosis related with substance use has a poor treatment response, course and prognosis. There are some hypotheses concerning relationships between substance use and schizophrenia, for example; cannabis plays role etiologically psychosis as a self-medication to cope with psychotic symptoms or medication, triggers to psychosis vulnerably people. Amphetamines

acute administrations may lead to schizophrenia like psychotic symptoms and continuous use of them may lead to development of schizophrenia according to some authors. And also cocaine induced psychosis is another investigated subject. Characteristics of its psychotic symptoms are prevalent paranoid delusions and hallucinations. Some authors suggest that cocaine psychosis may difficult to distinguish from schizophrenia even after one year later. Things that fall through the cracks in substance psychosis relationships needs further investigations for a better understanding and management.

**Keywords:** psychosis, schizophrenia, Substance use, substance abuse

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## Neural mechanisms of night eating syndrome

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Obesity and Eating Disorders: From Neuroscience to Classification

Night Eating Syndrome (NES) is a diagnosis which currently included in DSM-5 under renamed residual category of 'other specified feeding or eating disorder'. "Recurrent episodes of night eating", "eating after awakening from sleep, or by excessive food consumption after the evening meal" describes the features of this entity. Excluding environmental influences or social norms and another mental health disorder (e.g. BED) which can better explain the behavior also requires for diagnosis of NES.

Some of the researchers have not been convinced that NES qualifies as legitimate disorder since no agreement on definition of NES and shortage of generally accepted diagnostic instruments for NES. Difficulties in clearly distinguishing from other diagnoses, such as binge eating disorder, has been another opposition for meeting five criteria required to judge an any entity ready for inclusion as valid diagnosis in DSM-5 (1).

Kendler et al. has been suggesting a guideline in order to evaluate proposed new diagnoses such as NES to include as a new form of eating diagnosis in DSM-5. In an effort to provide a user-friendly conceptual framework for the classes of validators to be used in the DSM5 process, they modified an earlier proposal (2) that organized the validators chronologically into three categories: antecedent, concurrent and predictive validators.

Stunkard et al. proposed a biobehavioral model for NES (3). According to their model NES is a disorder characterized by a delayed circadian rhythm of food intake and neuroendocrine function. This neural mechanism has been shown by neuroimaging of brain serotonin transporters (SERT) and treatment with selective serotonin reuptake inhibitors (SSRIs). SERT binding is elevated in the midbrain of night eaters, causing dysregulation of the circadian rhythm of both food intake and neuroendocrine function. It has been shown that sertraline treatment restores the circadian rhythm of both food intake and neuroendocrine function. On the other hand, Laermans et al. showed that disrupting the circadian rhythm of feeding induces a variety of diet-dependent metabolic, immune and gastrointestinal alterations which are influenced by ghrelin and the core clock gene Bmal1 (4).

Neural mechanisms of Night Eating Syndrome as a concurrent validator will be explored in this panel discussion. Some of researches about treatment response of NES also will be present as predictive validators in this sense. External validators as well as shared genetic risk factors and familiarity, neural mechanisms, and biomarkers will be help to better categorization and better understanding of this syndrome.

**Keywords:** night eating syndrome, validity, neural substrates

### References:

1. Striegel-Moore RH et al., *Int J Eat Disord* 2006;39:544-549  
[http://www.dsm5.org/ProgressReports/Documents/Guidelines-for-Making-Changes-to-DSM\\_1.pdf](http://www.dsm5.org/ProgressReports/Documents/Guidelines-for-Making-Changes-to-DSM_1.pdf)
2. Stunkard AJ, Allison KC, Lundgren JD, O'Reardon JP. A biobehavioural model of the night eating syndrome. *Obes Rev.* 2009 Nov;10 Suppl 2:69-77.
3. Laermans J, Broers C, Beckers K, et al. Shifting the circadian rhythm of feeding in mice induces gastrointestinal, metabolic and immune alterations which are influenced by ghrelin and the core clock gene Bmal1. *PLoS One.* 2014 Oct 16;9(10):e110176.

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## Gender dysphoria: Diagnosis and follow-up process

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Gender dysphoria (GD) is a phenomenon characterized by a strong, persistent, and discomforting disconnection between an individual's expressed/experienced gender and their biological sex as assigned at birth. Compared with many other psychiatric disorders, GD is a rare condition. In DSM-5, which was published recently, it was stated that prevalence rates are %0.005-0.014 in adult men and %0.002-0.003 in adult women, respectively. The etiology of GD is not yet fully known. In recent years, research has focused on biological models such as prenatal exposure to sex hormones or genetic factors.

The sex reassignment (SR) is based on the standards of care guidelines of the World Professional Association for Transgender Health. The general goal of treatment of GD is "lasting personal comfort with the gendered self to maximize overall health, psychological wellbeing, and self-fulfillment". The treatment of GD requires a multidisciplinary approach. Treatment options include psychotherapy (for purposes such as exploring gender identity, addressing the negative impact of GD and stigma on mental health, alleviating internalized transphobia, enhancing social support), cross-sex hormonal therapy and sex reassignment surgery to change primary and/or secondary sex characteristics. Some individuals with GD may only want partial treatment (e.g. hormones alone). The specialist's role is to evaluate whether the individual is eligible and ready for treatment at each stage.

In Turkey, the subjects of "sex reassignment" were first brought to agenda in 1988 with a paragraph added to the 29<sup>th</sup> article of Civil Law. However, since that regulation was not found sufficient with regard to the current conditions and consequences of SR. In 2002, a more detailed regulation was put in the 40<sup>th</sup> article of the Civil Law. Within the scope of this law article, persons who apply for SR should be older than 18 years of age and should not be married. Additionally, these persons should document that they are in transsexual structure and SR is compulsory from mental well-being and they are permanently deprived of the ability to breed with a medical board report which was obtained from a training and research hospital.

**Keywords:** gender dysphoria, sex reassignment, treatment

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## The neurobiology of cannabis and synthetic cannabinoids use disorders

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Substance use is a major public health problem at the present time. The median age of substance use is decreasing and it is more frequently seen in childhood period gradually. Especially cannabis (weed, marihuana, hashish) and synthetic cannabinoids (Bonzai, Jamaika, Spice, K2, JWH-018, JWH-073) have been a central feature in a subculture of the youth. Adolescence period is the most critical phase for the emergence of substance use behavior. In this period especially cannabis and synthetic cannabinoids are the most prevalent illegal drugs used. Synthetic cannabinoids have been popular and their use has reached to dangerous levels regarding to their cost-effectivity, easy to achieve and due to a false belief of their harmless nature. Similar to alcohol and nicotine, cannabinoid and synthetic cannabinoids are believed to be gateway drugs for heavy and more addictive drugs like cocaine and heroin. Cannabis is produced from jute (cannabis sativa) and its active component is delta-9 tetrahydrocannabinol. Effect of cannabis and synthetic cannabinoids is due to their action on cannabinoid receptors (CB1 and CB2). They particularly activate the CB1 receptors in the ventral tegmental area, amygdala, nucleus accumbens and effects reward and motivation system due to their indirect impact on dopamine release. Substance use in childhood which is the most critical period of biopsychosocial development may cause psychiatric disorders and tendency for compulsive-persistent substance use pattern over their effect on immature brain causing structural and functional deficits. Use of cannabis, synthetic cannabinoids and other substances may cause medical, psychiatric and social problems in the developmental stages of the individual as a result this is a delicate matter. Comprehending the neurobiology of substance use which is a major threat for children may help us to prevent substance use disorders and/or to treat these disorders effectively. In this presentation, neurobiological properties of cannabis and synthetic cannabinoids are going to be presented in the view of developmental perspective.

**Keywords:** adolescent, cannabis, child, neurobiology, synthetic cannabinoids

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## Approach to addiction in children of parents with chronic psychiatric disorders

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The psychological and social development of children of mentally ill parents is at high risk of a range of emotional, behavioral, cognitive and social difficulties. Families of persons suffering from mental illness or addiction suffer too, especially their children. Offspring of mentally ill or addicted parents are at risk for developing mental disorders or illnesses themselves. Studies using the "top-down" approach have consistently shown that offspring of depressed parents have a substantially increased risk for experiencing not only depressive disorders, but also other psychopathology, such as anxiety or substance-use disorders. The duration of exposure to active parental bipolar disorder in childhood is an important risk factor for the subsequent development of mood and non-mood psychopathology, including substance use disorder risk in adolescents. Offspring of parents with schizophrenia have also an increased frequency of a broad range of axis I psychopathology.

The combination of coping with their mental health problems and caring for children makes parents vulnerable. Furthermore, children of mentally ill parents are more likely to lack adequate support, care provision and access to services. The family plays a central role in adolescents' socialization, family factors are reported to be one of the major risk factors of adolescent substance use. Adolescent substance use disorder and internet addiction were found to be associated with broken parenting, parent-adolescent and intra-family conflict, accepting attitudes of parents toward substance use of adolescents and parental alcohol or tobacco use in the home. A low degree of bonding between children and parents appear to increase risk for adolescent problem behavior generally, including the abuse of alcohol and other drugs. Parental psychopathology may affect negatively family management practices, parenting styles, parent-child attachment which predicts initiation of drug abuse in their children.

Traditional evidence-based approaches for treatment of substance use disorder include cognitive-behavioral therapy, contingency management and family-based therapy. Family-based interventions can improve family functioning among adolescent substance abusers.

Preventive interventions should be directed at high risk individuals who were already showing early signs of being on the trajectory to substance abuse. Family-based preventive interventions include primarily addressing parent and family skills training, or addressing family therapy and in-home family support models. Effective treatment of parents with chronic psychiatric disorders will help both themselves and their children, especially early in development. The high rate of coexisting psychiatric disorders among adolescents with substance use disorder in the community needs to be taken into account in prevention and treatment programs.

**Keywords:** addiction, children, parents

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## Oxidative stress markers in psychiatric disorders

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Oxidative stress is briefly defined as exposure to excessive oxidants and/or decrease in antioxidant capacity. While oxygen is essential for aerobic life, excessive amounts of its free radical metabolic by-products are toxic and damage cellular proteins, lipids, carbohydrates and nucleic acids. The brain is considered particularly vulnerable to oxidative injury due to high oxygen utilization, insufficient antioxidant defense mechanisms, high lipid content and excitotoxicity. Markers of oxidative stress have been examined in both peripheral samples (whole blood, plasma, serum, red blood, platelets, and urine) and the central nervous system (post-mortem brain and cerebrospinal fluid). Major oxidative stress markers used in clinical studies are free radical nitric oxide (NO), antioxidant enzymes (superoxide dismutase (SOD), catalase (CAT) glutathione reductase (GR), glutathione S transferase (GST), glutathione peroxidase (GSH-Px), nonenzymatic antioxidants (albumin, uric acid, ascorbic acid, vitamin E, total antioxidant status, glutathione (GSH), thioredoxin (TRX)) and lipid peroxidation products (thiobarbituric acid reactive substances (TBARS), and malondialdehyde (MDA)). Numerous studies have shown alterations in oxidants and antioxidant defense mechanisms in schizophrenia, bipolar disorder and major depressive disorder. However, the findings are not consistent with some reporting increases while others reporting no change or reductions in various markers. Moreover, evidence from

clinical, pre-clinical and epidemiological studies suggest that a benefit of using antioxidant compounds such as vitamin E, vitamin C, Omega-3 fatty acid, coenzyme Q10, and N-acetylcysteine (NAC) should be considered as adjunctive therapy in these major psychiatric disorders. Taken together, alterations in oxidative stress markers and some promising results of using antioxidant compounds suggest a role of oxidative stress in the pathophysiology of schizophrenia, bipolar disorder and major depressive disorder, although further investigations are needed.

**Keywords:** biomarker, oxidative stress, psychiatric disorders

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## Theory of mind disorder in psychotic disorders

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Theory of mind (ToM) is the ability to understand that the mental status of other individuals is different than its own and to come up with logical assumptions about the context of other's mental status (purpose, belief, etc.). Typically; ToM works based on individual's ability to understand the wrong beliefs and connotations. We can assert that the patients with disorders of ToM show a lack of understanding the mental status of both others and themselves. They can also represent inadequate responses to the mental status that they understood. We can address to an over-vicariation in patients who lacks in referring the mental status of others but still can understand in a vicariative way. There can be also another kind of cases in which the capability of understanding the mental status of other individuals is intact whereas to understand its own mental status is not functional. These patients are not capable of understanding the mental status (thoughts, purposes) of their own. Pathologies in ToM are often associated with problems in social interaction and communication as well as several psychopathological problems. Frith (1992) investigated the relationship between ToM and Schizophrenia, compared autism and schizophrenia and made pioneering scientific studies asserting that deterioration in both social and communication skills show similar characteristics. Frith related ToM disorders with 3 groups of schizophrenia characteristics. According to the model that Frith developed; following pathologies can be explained with ToM disorders: 1) disorders of goal-oriented behaviors (negative or disorganized behaviors), in other words disorders in understanding the own purpose of itself or to interpret their behaviors as a result of self-oriented activities, 2) self-observing disorders (delusions of being controlled by someone else, imperative vocal delusions or other submissive behaviors), 3) disorders in observing the thoughts and purposes of others (reference and persecutory delusions). The relationship between ToM and Schizophrenia findings/stages was investigated several studies. Patients with disorganization and paranoid findings showed worse performance than other subgroups and control group. In another study; the performance was found to be worse in patients with disorganization findings. There was no significant difference in terms of positive/negative symptomatology. In a study consisting 267 Schizophrenia patients, a significant relationship was found between negative symptoms and ToM performances. There is no consensus on the relationship between ToM and disease symptoms. There are some studies asserting that ToM disorder is a state-like alteration and is associated only with symptoms. However, there are more numbers of studies asserting that ToM is a trait-like alteration which can be observed in both active and remission period of the disease. There are also some studies indicating that ToM disorder is an independent disorder from neurocognitive disorders as well as some other studies indicating that it is associated with neurocognitive disorders. There is still no consensus about the relationship between neurocognitive and ToM disorders. It was also demonstrated that pathological ToM abilities are associated with bad performance and lack of disease insight in patients with Schizophrenia.

**Keywords:** schizophrenia, theory of mind, psychopathology

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## The clinical characteristics of attention deficit-hyperactivity disorder and obsessive-compulsive disorder in adults

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Obsessive-compulsive Disorder (OCD) and attention deficit hyperactivity disorder (ADHD) are very common psychiatric disorders in childhood and adulthood. Up to 30% of children and adolescents with OCD, also satisfy meet diagnostic criteria for ADHD, while the rate of OCD among children with ADHD is estimated to be 8 to 11%. The comorbidity rate of ADHD among adults with OCD was estimated to be 2.0-22.9%. Longitudinal data demonstrates that the subjects who had ADHD during childhood were at risk for OCD in adult periods, whereas those diagnosed with OCD during childhood were not likely to develop ADHD. These findings suggest that a subset of patients with ADHD maybe at elevated risk for developing OCD, while the majority is not at risk. ADHD was found to be the most common comorbidity in early-onset OCD, when tic and Tourette syndrome were exclusion criteria. Comorbidity of ADHD in early-onset OCD seemed to be associated with a higher severity and persistence of OCD, and hoarding symptoms. ADHD and OCD appear to be considerably different in terms of their phenomenology. However, both can present with symptoms of inattention and distraction, and differentiating between primary attentional symptoms and attentional symptoms secondary to a core anxiety disorder. In this comorbidity, it is uncertain yet whether inattention, impulsivity, and hyperactivity are consequences of OCD and related anxiety symptoms or represent a co-occurring ADHD. Patients with OCD and ADHD have been found to present several cognitive deficits related to fronto-striatal functions. Previous studies reported that patients with OCD have various deficits on tasks of attentional processing (Schmidtke et al., 1998), executive and visual memory functions.

The high prevalence of ADHD and OCD in childhood and the high degree of comorbidity between these disorders suggest that they share genetic factors. Children who are at risk for OCD are those whose first degree relatives have OCD and ADHD suggesting that OCD and ADHD can be inherited together. When the relatives of patients with ADHD were also affected by ADHD, they had a significantly elevated risk for OCD compared to relatives without ADHD.

Impulsivity is one of the prominent features of ADHD. In recent years, several studies have investigated the relationship between OCD and impulsivity, as well as ADHD. It is not so definite if inattention and impulsivity are consequences of OCD or represent a comorbid ADHD. For example, some of the studies have reported that patients with OCD experienced higher levels of impulsive behavior than do nonclinical controls, and those with tics, while some studies showed that impulsivity levels of OCD patients did not differ from those of nonclinical samples. Some of the previous studies reported several relationships between various OC and impulsive symptoms.

Although OCD-ADHD comorbidity was investigated in children and adolescent OCD samples in numerous studies, only a few studies examined the characteristics of OCD-ADHD comorbidity in adults. In this presentation, we will discuss the clinical implications of ADHD-OCD comorbidity in adults, in the light of recent studies.

**Keywords:** attention deficit-hyperactivity disorder, obsessive-compulsive disorder, adulthood, childhood, comorbidity

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## A new clinic diagnosis in DSM-5: Skin picking disorder

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Skin picking disorder is characterized by repetitive and compulsive picking behaviors that results in skin lesions. It is also known as an excoriation disorder or dermatillomania. Skin picking disorder was classified as an 'Impulse Control Disorder Not Otherwise Specified' in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV). However, skin picking disorder is currently categorized under 'Obsessive-Compulsive and Related Disorders' in the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5). The cause of this disorder is still not clearly known. Individuals with skin picking disorder must have made repeated attempts to decrease or stop the skin picking, which must cause clinically significant distress or impairment in social, occupational or other important areas of functioning. The symptoms must not be better explained by symptoms of another mental disorder (e.g., delusions or tactile hallucinations

in a psychotic disorder, attempts to improve a perceived defect or flaw in appearance in body dysmorphic disorder, stereotypies in stereotypic movement disorder, or intention to harm oneself in non-suicidal self-injury).

There is no standardized treatment protocol for skin picking disorder, but cognitive behavioral therapy alone or combined with psychopharmacological agents are frequently used for the treatment of this disorder. The primary treatment approach for skin picking disorder is a form of cognitive-behavioral therapy called Habit Reversal Training. Early psychosocial treatment studies provided preliminary evidence for skin picking reduction with habit reversal or acceptance-enhanced behavior therapy.

As a psychopharmacological agent, specifically selective serotonin reuptake inhibitors including fluoxetine, fluvoxamine, sertraline, paroxetine, citalopram and escitalopram; mood stabilizers including lamotrigine; typical/atypical antipsychotics including risperidone, aripiprazole, olanzapine; naltrexone as an opioid antagonist are often prescribed to treat skin picking disorder. The majority of the psychopharmacological agents that used in the pharmacological treatment of skin picking disorder show effect over the monoamine and dopamine pathways and secondary messenger systems. The role of glutamatergic dysfunction in the pathophysiology of obsessive-compulsive disorder has been studied in the recent years. This presentation aimed to discuss about skin picking disorder on the basis of the current literature knowledge.

**Keywords:** dermatillomania, excoriation disorder, skin picking disorder

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## The relationship between attention deficit hyperactivity disorder and bipolar disorder in adults

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Attention-deficit/hyperactivity disorder (ADHD) is a childhood-onset disorder, characterised by hyperactivity, impulsivity and inattention. Longitudinal studies demonstrate that ADHD in childhood persisted into adulthood in nearly 30% of the cases. The prevalence rates of ADHD in adults are estimated to be 2.5-4.3%.

Bipolar disorder (BD) is a mood disorder with abnormal shifts in mood, energy, activity, sleep, and cognitive functions during episodes of mania and depression. Life-time rates of bipolar I and II, range from 0.1% in 8-19 year olds, to 2.5% in adolescents.

ADHD is characterized with less externalizing symptoms and with a higher rate of psychiatric comorbidities, including major depressive disorder, BD, anxiety disorders and substance abuse. ADHD and BD are highly prevalent neurodevelopmental disorders with an early age of onset, a chronic course, and persistence into adulthood leading to significant impairment of educational, vocational, and interpersonal functioning and increased morbidity and mortality. BD and ADHD are frequently comorbid (5-20%) and are commonly associated with other medical and psychiatric conditions in adults.

ADHD symptoms are chronic and trait-like and refer to differences from developmental norms; whereas BD symptoms are traditionally conceptualized as changes from an individual's usual premorbid state.

Research has shown that a pattern of irritable mood and emotional lability commonly co-occurs with ADHD in children and adults. Furthermore, similar rates of irritability have been reported in studies investigating children with ADHD and BD.

ADHD symptoms may occur as a prodromal phase of BD or may evolve into BD in later periods. Molina et al. were reported that 1.8% of children developed hypomanic symptoms during the next eight years. Another study found that nearly 30% of children with ADHD developed mania or hypomania over 6 years of follow up.

Several studies examined the efficacy of mood stabilizers and second generation antipsychotics as well as stimulants or atomoxetine.

In this presentation, we will discuss the clinical characteristics of ADHD and comorbidity, treatment modalities in adults in the light of recent studies.

**Keywords:** attention deficit hyperactivity disorder, bipolar disorder, comorbidity

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## Neurobiology of Erectile Dysfunction

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Erectile dysfunction (ED), which is defined as the inability to attain and/or maintain an erection for satisfactory sexual performance. Epidemiologic studies find that ED is experienced by 10% to 20% of all adult males worldwide.

Sexual arousal is defined in both subjective (e.g., feeling sexually excited) and physiological terms (e.g., genital vasocongestion). Physiological sexual arousal in males involves the regulation of hemodynamics of penis that is dependent on signal input from central and peripheral nervous systems, and on a complex interplay between neurotransmitters, vasoactive agents, and endocrine factors. Physiologically, erection is triggered by the parasympathetic division of the autonomic nervous system.

Within the penile sinusoidal tissue is a central artery and veins that exit and drain the erectile bodies. The smooth muscles that line the sinusoidal spaces and the central artery are tonically contracted during the flaccid state. Erection begins with smooth muscle relaxation mediated by nonadrenergic-noncholinergic autonomic nerves that, together with the vascular endothelium, release nitric oxide (NO) into the corpus cavernosum of the penis. The second messenger, cyclic guanosine monophosphate (cGMP) mediates the effects of NO that causes smooth muscle relaxation. Smooth muscle relaxation reduces vascular resistance and the erectile bodies fill with blood. Once the erectile bodies become engorged, the emissary veins are compressed under the tough fibroelastic covering and blood is trapped in the penis. Normally, detumescence occurs with the release of catecholamines during orgasm and ejaculation. Activation of the sympathetic adrenergic nerves causes release of noradrenaline, which acts on adrenoceptors in the trabecular smooth muscle of the corpus cavernosum and in penile vessels. In addition to mediating detumescence, the sympathetic nervous system may play a role in maintaining a non erect state.

Centrally, penile erection is controlled by centers located in the thoracolumbar and lumbosacral regions of the spinal cord. Erections are elicited in a variety of physiological contexts via information sent from the periphery and supraspinal nuclei to these centers. The locus ceruleus (located in the pons) sends noradrenergic fibers to the forebrain and spinal cord, including those areas controlling erection.

As an autonomic nervous system response, an erection may result from a variety of stimuli, including sexual stimulation and sexual arousal, and is therefore not entirely under conscious control. Erections during sleep or upon waking up are known as nocturnal penile tumescence (NPT). Absence of nocturnal erection is commonly used to distinguish between physical and psychological causes of erectile dysfunction and impotence.

**Keywords:** erectile dysfunction, neurobiology, sexual function

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## Pre-op and post-op evaluation of mental health in bariatric surgery

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The number of the patients seeking treatment for obesity has been rising, as has the prevalence of obesity. Bariatric surgery is treatment modalities which is becoming increasingly popular in the last decade in our country and around the world, given that other methods of weight loss such as dieting, exercise, behavioral treatment, and pharmacotherapy, have generally failed to be effective long-term treatments. Bariatric surgery appeals to many patients because it usually provides a fairly rapid and dramatic change in weight that can be perceived shortly after the surgery. The number of patients undergoing bariatric surgery are increasing day by day considering the success of bariatric surgery with regard to lose weight fast and the improvement in co-morbid conditions. Although bariatric surgery is generally effective in terms of substantive weight loss, there is great variability in outcome and about 20% of individuals either fail to achieve the desired weight loss or begin to regain excessive amounts of weight after initial success. Therefore it is important to identify factors associated with negative outcome to reduce the failure of bariatric surgery regarding the weight loss. Research shows that bariatric surgery candidates have higher rates of several types of psychopathology compared to other obese people and to people in the general population. Mood disorders, anxiety disorders, eating disorders and personality disorders are among the most commonly observed psycho-pathologic conditions. While anxiety disorders are the most common psychiatric disorders in general population, the affective

disorders, especially the major depressive disorder, are the most frequent lifetime form of psychopathology among bariatric surgery candidates. Obesity and bariatric surgery are in a reciprocal relationship both with psychiatric disorders and psychosocial variables. Presence of psychopathology, their weight and dieting histories, eating and activity habits, social/psychological status, and readiness for bariatric surgery, level of knowledge related to the surgical procedure and patient's expectations about physical, psychological and social changes are the significant parts of the evaluation of bariatric surgery patients.

Just as there is not standard in psychiatric evaluations before surgery, there is not consensus about which psychological interventions will be most suitable and influential towards a positive outcome for the surgery.

Target of the psychiatric evaluation in weight loss surgery programs is presence and severity of psychopathology, evaluate postoperatively changes, and understand to predictive factors which effect surgery outcomes. Pre-surgery evaluation and post-surgery follow-up provide identification and understand potential problem. A better understanding of the mechanisms of weight loss also may help us refine targets for interventions and realize the ideal of personalized post surgery management. Post-surgery interventions may improve patient functioning, quality of life.

**Keywords:** bariatric surgery, mental health, obesity

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## Neurocognitive effects of obesity and bariatric surgery

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Obesity has been rising and become one of the most important public health problems due to both adverse physical and psychological effects. Bariatric surgery has been gaining in popularity because usually provides a fairly rapid and dramatic change in weight that can be perceived shortly after the surgery.

In addition to the relationship between obesity and physical and mental health problems, rapidly growing evidence shown that obesity is also associated poor neurocognitive outcomes. The studies suggest that the cognitive impairment associated with the increase in the body mass index. Bariatric surgery patients have high risks of neurocognitive deficit because of the severe obesity and have much medical comorbidity. Evaluation of cognitive function before and after surgery, allow us to examine as well as the impact of severe obesity on cognitive function also how cognition affected by weight loss and related risk factors.

Obesity associated with a decrease in cognitive skills such as memory, attention and executive function. The question is that this problem related obesity directly or indirectly (i.e., via metabolic changes)? Also it is unknown adiposity is a cause or a result of deterioration of cognitive function. Deterioration in cognitive ability, increased levels of impulsiveness and decreased inhibitory control are possible explanation for binge eating and loss of control eating. Impaired ability to delay gratification may negatively affect successful maintenance of weight after obesity surgery. Moreover, some of the patients who significantly losses weight due to bariatric surgery subsequently develop or increase impulsivity-related behavior (such as compulsive buying, pathological skin picking, and exercise addiction). It is not clear yet that is related with food for example overeating, binge eating or loss of control eating.

Obese patients often exhibit comorbid hypertension, type 2 diabetes, sleep apnea, and depression; all of these conditions related with pathological changes to the brain and impairment of cognitive function. Midlife obesity as a risk factor for subsequent dementia (including Alzheimer's disease and vascular dementia).

Cognitive impairment common before bariatric surgery and there is rapid improvement after surgery. Post-surgical improvements in cognitive function can be explained by recovery of obesity-related medical disorders (hypertension, diabetes, sleep apnea, and depression).

Although bariatric surgery is generally effective in terms of substantive weight loss, there is great variability in outcome and about 30% of individuals either fail to achieve the desired weight loss or begin to regain excessive amounts of weight after initial success. Cognitive function one of the factor which predictors of weight loss outcomes.

Unfortunately, there is no established standard for neuropsychological assessment for bariatric surgery patients yet. Pre-operative and post-operative bariatric surgery neuropsychological battery must have include attention, executive function, memory, language, visuospatial and motor function evaluation.

**Keywords:** bariatric surgery, obesity, cognitive function

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## Elderly-onset obsessive compulsive disorder

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Obsessive-Compulsive Disorder (OCD) is a chronic and clinically heterogeneous disorder that is characterized by the presence of intrusive, recurrent thoughts or images (obsessions) and/or attempts to avoid the obsessions through repetitive behaviors or actions (compulsions), with a prevalence ranging between 0.5–2% in general population. Diagnostic and Statistical Manual of Mental Disorders (Fifth edition) categorizes OCD in obsessive-compulsive spectrum disorders. Studies examining the age onset of OCD demonstrate a bimodal distribution, one peak in the childhood years and another in the early adult years, but it may also occur in late life, termed late-onset OCD. Various researchers suggested different ages at onset for this condition. OCD is not uncommon in the elderly population and researches on over age 65 individuals have reported 1- 6 month prevalence ranging between 0.2% and 3.2%. OCD studies have reported clinical and phenomenological differences in the elderly patients. Onset after 65 years of age is usually related to drugs or an organic etiology, such as infections, brain injury and cerebrovascular lesions, neurodegenerative disorders, especially involving frontal lobes and basal ganglia. For example, neurologic disorders such as Parkinson's disease, Huntington's disease, and dementia may also present with symptoms of OCD. Hoarding and similar compulsive behaviors can be observed in dementia patients. OCD cases, which occur in elderly, should be examined for organic etiology. Older patients are more likely to be susceptible to the drug-induced side effects. Especially they are more sensitive to anticholinergic side effects of psychotropic drugs. Potential pharmacokinetic and pharmacodynamics drug interactions should be considered in this population. Evidences are controversial about whether selective serotonin reuptake inhibitors effective or not, for OCD patients, which have organic etiology. Medical treatments should be started at a lower dose, and then gradually increased to a therapeutic dosage. Older adults can benefit from cognitive-behavioral psychotherapy (CBT) that includes age-related treatment modifications. OCD has been widely studied in children, adolescents, and adults but it has not been well studied in elderly patients. Systematic researches are required to understand clinical, neuropsychological, and neurobiological aspects of elderly onset OCD. In this presentation, we will discuss the recent developments in the field of elderly-onset OCD by reviewing the clinical, neurobiological and pharmacological studies.

**Keywords:** elderly, late-onset, obsessive compulsive disorder

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## Iron and associated parameters in ADHD

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Attention deficit hyperactivity disorder (ADHD) is one of the most common childhood neuropsychiatric disorders. ADHD has been described as a clinical case for many years, but its etiology has not yet been fully elucidated. The disorder is commonly considered to develop as a result of interactions between genetic and environmental factors.

Iron deficiency has also been also reported to be a possible risk factor in the pathophysiology of ADHD, but thus far, results regarding this issue have been contradictory.

Iron is an essential element that plays an important role in many biological processes, including basic brain functions. Iron deficiency has been indicated to effect catecholamine metabolism, especially dopamine, which may lead to symptoms of ADHD. Since iron is the major cofactor of the tyrosine hydroxylase enzyme (the rate-limiting step in dopamine synthesis); animal experiments have shown that iron deficiency affects the density and transport of dopamine receptors in the brain; and that iron deficiency causes dysfunction in the basal ganglia, which are rich in dopamine and considered to play an important role in ADHD development; it has been suggested that iron deficiency is associated with ADHD. It has been reported that iron deficiency affects cognitive, motor, social and emotional functions in children, which also supports the hypothesis that iron deficiency may play a role in the pathophysiology of ADHD.

Serum ferritin levels, which are typically accepted as a reliable indicator of body iron stores, have been used to determine iron deficiency in studies related to the issue in the literature review. The results of recent studies regarding iron deficiency and ADHD have not been consistent. While some studies have reported a significant relationship between ADHD and low serum ferritin levels, others studies have reported no such relationship.

Serum ferritin levels should also be compared with ADHD subtypes, although thus far, only two published studies have done this, and both found no significant difference between subtypes.

Thus far, results of studies evaluating the relationship between serum ferritin levels and the severity of ADHD symptoms have been inconsistent. Some studies have shown a significant relationship between serum ferritin levels and the severity of ADHD symptoms, while others have not.

Our group was planned a study considering the limitations of previous studies. The primary aim of our study is to determine whether there is a difference in iron deficiency between a large ADHD group with no prior usage of psychotropic medication and a healthy control group. The secondary aim of our study is to investigate differences in iron deficiency between ADHD subtypes, and to evaluate the relationship between the severity of ADHD symptoms and serum ferritin levels.

In this symposium, it is aimed to explain the extensive literature on this topic. In doing so, our study will be taken into consideration.

**Keywords:** adolescent, attention deficit hyperactivity disorder, children, ferritin, iron

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## Child trauma after natural disaster

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There are many descriptions in the literature about the disaster. A disaster is a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources caused by human being or nature itself<sup>1</sup> It can either raised or the inadequacy of resources to intervene. Prerequisite in this definition is that the communities affected by the disaster cannot overcome on their own (1). Turkey is affected by natural origin earthquakes, floods and landslides in a level of disasters. Post Traumatic Stress Disorder (PTSD), which is commonly encountered after the disaster and leads to disability, is one of the most important psychological problems. If mental disorders occur after traumatic events, cannot be identified at an early stage they may become a permanent health problem. The basic principle of mental evaluation is not the disease but to focus on health. In disaster moments traumatized people may exhibit a temporary psychological and behavioral symptom. Protecting people as many as possible and decreasing the affects is the primary duty of medical workers. The most significant preventive factor against psychological problems and to increase the mental endurance is to maintain regulations of preventive services (2). Reactions to trauma varies from person to person. These differences arise both from personal features and characteristics of the traumatic event. Given the situation for children and adolescents are taken into account, the predictor of response is the child's age or developmental stage. From infancy, children react to traumatic events. It is a great mistake to think adults are affected more than children and babies because they are unable to realize fully what is happening around them. On the contrary, children of all ages, including babies, aware of events occurring in the environment and they are extremely sensitive to them; heir response will vary depending on their age. Children with less age is increasing sensitivity to the reactions of their caregivers (3). One of the services made post-disaster rehabilitation include psychosocial support services. "Psychosocial" refers individual psychology and social situation in a relationship with an interacting chain.

**Keywords:** child, disaster, PTSD

### Rereferences:

1. Isik O, Aydinlioglu HM, Koc S, Gundogdu O, Korkmaz G, Ay A. Afet yonemi ve afet odakli saglik hizmetleri. Okmeydani Tip Dergisi. 2012;28(2):82-123.
2. Kronenberg M E, Hansel TC, Brennan AM, Osofsky HJ, Osofsky JD, Lawrason B. Children of Katrina: Lessons learned about postdisaster symptoms and recovery patterns. Child development. 2010;81(4):1241-1259.
3. Erden G, Gurdil G. Savas yasantilarinin ardindan cocuk ve ergenlerde gozlenen travma tepkileri ve psiko-sosyal yardim onerileri. Turk Psikoloji Yazilari. 2009;12(24):1-13.

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## ADHD: Overdiagnosed

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Attention deficit hyperactivity disorder (ADHD) was introduced to psychiatric classification systems in 1980 with the publication of Diagnostic and Statistical Manual of Mental Disorders Third Edition. ADHD is a relatively new diagnostic category but it is not a recently developed syndrome. Conditions similar to what we call ADHD today have been described in the medical literature for over 100 years. ADHD is a disorder that typically first appears in childhood and has the main symptoms of inattention, overactivity, and impulsivity. Attention deficit hyperactivity disorder and bipolar disorder are frequently comorbid and overlapping diagnoses. The presence of overlapping symptoms such as talkativeness, restlessness, distractibility, impulsivity, and affective lability in both bipolar disorder and patients ADHD increases the significance towards the relationship between these two disorders (1,2). Despite all the similarities mentioned above, distinctive discrepancies exist between clinical bipolar disorder and ADHD. For example, bipolar disorder is associated with a course of affective attacks, while symptoms in ADHD show continuity. Interestingly, psychotic findings are seen during affective attacks in bipolar disorder, but these episodes are not expected in ADHD (3). Bipolar disorders might be evaluated and misdiagnosed as ADHD because of the similarities. Likewise, generalized anxiety disorder, major depressive disorder, dysthymia, somatoform disorder, antisocial and borderline personality disorders are diagnosis groups that can be frequently evaluated as ADHD since they show symptoms which are similar to ADHD. As a result, detailed evaluation and taking into consideration the differential diagnosis of the cases that are evaluated as ADHD are quite important for true diagnosis.

**Keywords:** ADHD, over diagnosis, mood disorders

**References:**

1. Sachs GS, Baldassano CF, Truman CJ Comorbidity of attention deficit hyperactivity disorder with early- and late-onset bipolar disorder. *Am J Psychiat* 2000; 157:466-8.
2. Nierenberg AA, Miyahara S, Spencer T Clinical and diagnostic implications of lifetime attention deficit hyperactivity disorder comorbidity in adults with bipolar disorder: data from the first 1000 STEP-BD participants. *Biol Psychiatry* 2005; 57:1467-73.
3. Torralva T, Gleichgerricht E, Torrente F et al Neuropsychological functioning in adult bipolar disorder and ADHD patients: a comparative study. *Psychiatry Res* 2011;

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## Diagnosis and management of nocturnal panic attacks

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Nocturnal (Nighttime) panic attacks can occur with no obvious trigger and awaken patients from sleep. As with a daytime panic attack, you may experience sweating, rapid heart rate, trembling, shortness of breath, heavy breathing (hyperventilation), flushing or chills, and a sense of impending doom. These signs and symptoms are quite alarming and can mimic those of a heart attack or another serious medical condition. Although nocturnal panic attacks usually last only a few minutes, it may take a while to calm down and go back to sleep after you have one. People who have nocturnal panic attacks also tend to have panic attacks during the day.

It is not actually known what causes panic attacks. Underlying factors may include genetics, stress and certain changes in the way parts of your brain work. In some cases, an underlying condition, such as a sleep disorder, can cause panic-like signs and symptoms. For this reason patients with nocturnal panic attacks have to consult to other specialists and should have any tests for a possible underlying condition. For treating nocturnal panic attacks, psychotherapy (cognitive behavioral therapy) or medications or both can help prevent panic attacks and reduce their intensity when they do occur.

When treating nocturnal panic attacks, we need to address patients nighttime panic attack triggers first, especially if an underlying health problem - such as GERD - is causing them. Unfortunately, because the patient cannot "talk himself/ herself down" from having a panic attacks if he/ she wakes up already having one, this is one of the few anxiety problems where treating a medical cause first is most important.

**Keywords:** diagnosis, management, nocturnal panic attacks

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## Problem solving therapy in adolescents alcohol and substance use disorder

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Problem Solving Therapy (PST) is an amelioration method which is widely used to solve the consequences of daily problems that individuals encountered. The main goal of problem solving therapy is to lead individuals for designing approachment strategy which is basically used to overcome daily problems. Furthermore problem solving therapy also aims to prevent psychopathology which may occur in result of challenge with real life difficulties. Therefore PST may be used for either treatment or prevention. In the latter one strengthening of resilience of the individual was intended.

Problem solving is a goal-directed cognitive behavioral progress for creating effective challenge methods as to real life difficulties that individuals faced.

Alcohol and substance abuse (ASA) is a recurring disorder that influences majority of the population and causes destroying results. Patients suffering from alcohol and/or illicit drug abuse feel themselves obliged to use that substances.

Even though ratio of substance abuse is not high in comparison to Western countries it was reported that majority of adolescents get involved with illicit drug use in our country during recent years. Increased use of illicit drugs raised concern about spreading of substance abuse throughout the country.

It was indicated that substance abuse may related to lack of adequate coping skills.

The stages of Problem Solving Therapy:

Stage 1: Recognition of the problem, complaint and solution

- Definition and variation of the problem and showing differences between trouble and complaint
- Counselling for solution and performing solving methods

Stage 2: Orientation to problem and style of problem solving

- Counselling for the consequences of positive and negative approach strategies
- Underscoring the importance of identifying the problem
- Informing the applicants regarding developing positive perspective

Stage 3: Defining the problems

- Recognition of emotional signs
- Formulation of the problem
- Creating linkage between emotional signs and problems
- Qualifying the problem

Stage 4: Detection of the goals

- Describing the goal and giving information of its function on problem solution

Stage 5: Constitution of alternative solutions

- Producing possible/reasonable options for the solution
- Elaborating the methods being used for alternative producing (brainstorming, reframing, advising to peer)

Stage 6: Selecting reasonable solution alternative

- Detecting the features of reasonable solution alternative
- Picking the appropriate solution from the list of solution alternatives

Stage 7: Practicing the solution method

- Evaluating fears of applicant
- Listing positive and negative results of solution methods

Stage 8: Interpreting the practice

- Consideration of the practice method and associated problems that are detected
- Appraisal of the whole Treatment

**Keywords:** problem solving, therapy, substance, adolescent, addiction

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## Psychopharmacologic approaches to psychiatric consultations of transplant patients in a patient that has organ transplant center

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Organ transplantation is the moving of a healthy organ from a living or dead donor body, to replace the recipient's damaged or absent organ partly or wholly in case of irremediable diseases. It is possible to transplant the organs such as liver, kidney, heart, lung, pancreas, cornea, small intestine etc. Patients may come up against many psychosocial challenges in company with multiple organic complications and psychiatric disorders during both pre- and post-transplantation period. For this reason, it is essential for transplant patients to receive psychiatric assistance for success of treatment and prognosis. The purpose of psychiatric assessment of transplant patients is to provide the recipient, donor and his/her family with assistance in their physically and emotionally challenging stages. Such psychiatric assessment incorporates the patient's history of adherence to treatment, whether or not the patient's family and social support has been sufficient, to what extent the patient has been ready for transplantation in cognitive and emotional aspects, the patient's decision-making ability, whether or not the patient's expectations from transplantation is realistic, the patient's coping mechanisms, the patient's frustration threshold and impulse control. It may be often seen over the course of their psychiatric follow-up during pre-treatment and treatment periods that the recipient patients have organic brain syndrome, depression, anxiety, self-destruction, body-image disorders and sexual dysfunctions accompanied by physiological and psychical changes.

The most frequently transplanted solid organ both in our country and across the globe is kidney. It is reported that the recipients of kidney have a significantly high psychomorbidity. Even though it is reported in majority of the cases that complaints of anxiety have persisted for long years, it is seen in almost two thirds of the patients, however being transient and associated with rejection anxiety at early phase of postoperative period. Another mental disorder observed in the patients is depression, increased levels of which were detected to be reducing adherence to treatment, elevating rejection risk and deteriorating the quality of life. A study conducted on 40 recipient patients who had undergone kidney transplantation 5 years ago on average revealed that structured diagnostic tools indicated mental disorders at the rate of 50% and major depressive disorders at the rate of 25%; and there appeared no significant difference between the group with mental disorders and the group without disorders in terms of sociodemographic features, end stage renal failure and postoperative length of time. Treatment and social support systems are highly credited for their considerable contribution to success of treatment among transplant patients. Another factor affecting the success of therapy is provision of social and psychiatric assistance, in the scope of which any addition of psychiatric disorder should be carefully evaluated in cooperation with transplant team for selection of pharmacological medicines in terms of both side effects and tolerability. This report is in the aim of emphasizing treatment of psychiatric comorbidity that might occur in any transplant center via certain cases.

**Keywords:** transplantation, psychiatric disorders, treatment

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## Organization induced mood disorders (psychopharmacologic approaches based on cases)

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Organicity-induced mood disorder is characterized by the existence of an apparent and continuous mood disorder, which is considered to be originating in a general medical condition. According to the World Health Organization's (International Classification of Diseases) (ICD) system, 'organic mood disorder' is referred to as the clinical manifestation characterized by recovery or significant improvement of the mental disorder within a short period of time following removal or improvement of the underlying presumed cause, absence of sufficient or suggestive evidence for an alternative causation of the mental disorder, and presence of cerebral disease, damage or dysfunction, or of systemic physical disorder known to cause psychiatric dysfunction. As a widely accepted view in the literature, it is the organic reasons which have been mostly responsible for late onset mood disorder. Major organic reasons are neurological factors, notably white matter hyperintensity and cortical atrophy. Cerebrovascular disease, stroke, dementia, epilepsy, brain tumors and encephalitis are

the most important elements of neurological factors. Neurological diseases were shown to be appearing twice as much in the patients with late onset mood disorder. Cross-section studies indicated that disinhibition and euphoria were more frequent in frontotemporal dementia. Vascular dementia, Huntington disease, hydrocephalus and prion disease were also associated with mania. Systemic reasons giving rise to mania include Cushing syndrome, hyperthyroidism and vitamin B12 deficiency. The existing literature states that 3% of the patients with Cushing syndrome represent mania and hypomania; and there are some studies showing that one-third of the patients accepted for inpatient treatment with the diagnosis of mania represent hyperthyroidism indications. It is considered that the patient should be followed up in terms of dementia process and of other organic reasons as old-aged manic attacks are strongly associated with organic factors. Antidepressants, psycho-stimulants corticosteroids are primary drugs that may lead to fluctuations of mood. Particularly high-dose use of steroids gives rise to hypomania and mania in one fourth of patients. In designing protective treatment in this group of patients, tolerability and side effects should be taken into consideration. It would be better to make final decision within the course of clinical observation about supplementing mood regulators in case of old-aged patients, who are also required to take multiple drugs. It is underlined that incorporating ECT and psychotherapy into the treatment process might be helpful in resistant cases. Patient complaints and physical examination findings should be evaluated carefully and it should be always kept in mind that these findings might have been arising out of any reason other than drug's side effect or mood symptoms. This presentation aims to discuss the cases where manic episode develops after closed head trauma, where mood disorder develops after subdural hematoma, where depressive disorder of psychotic nature develops in company with colloid cyst of the third ventricle and catatonic characteristics, and where bipolar disorder develops after diagnosing a multiple sclerosis, as well as related treatment methods.

**Keywords:** organic disorder, head trauma, subdural hematoma, multiple sclerosis, colloid cyst, bipolar disorder, depressive mood

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## Oxytocin treatment in autism spectrum disorder: from theory to practice with case presentations

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Autism Spectrum Disorder (ASD) refers to a group of neurodevelopmental disorders characterized by impairments in social communication, and repetitive behaviors and restricted interests. The core symptoms of autism spectrum disorders are highly prevalent and currently untreatable at a significant level. The symptoms produce a heavy burden on individuals with ASD, their families, and the society as a whole. Recent evidence suggests that oxytocin can be utilized as a novel therapeutic for the core symptoms of ASD, particularly those related to difficulties with social interaction and communication. In animal models, oxytocin has been shown to play critical roles in social processing, recognition, and bonding, and also to influence stereotyped behaviors. Single dose studies in healthy volunteers have reported on increased trust, empathic accuracy, and time spent looking at eyes, and face identity recognition memory. A few systematic reviews about autism and oxytocin have already been published and the findings regarding the efficacy of oxytocin are inconsistent. A small number of studies designed to evaluate the effect of multi-dose intranasal oxytocin on core symptom domains in ASD is available. The case series of 8 male youth (ages 10–14 years) who received a total of 6 months exposure of oxytocin have reported that improvements were noted in social and communication scores based on direct observation on a structured assessment, but not on parental reports of maladaptive behaviors. On the other hand, in a study evaluated a 5-day intervention with 38 male youths with ASD (ages 7–16 years) no improvements were noted in emotion recognition, social skills and other behavioral domains. According to a Maximum-Tolerated-Dose study, a maximum dose for multi-dose studies in children up to a maximum of 24 IU/per dose adjusted for weight is suggest potential efficacy and safety of multi-dose intranasal oxytocin in children and youth with ASD. Usage of intranasal oxytocin treatment in five children with ASD will be presented and discussed based on literature.

**Keywords:** autism spectrum disorder, treatment, oxytocin

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## Understanding metaphors from the Relational Frame Theory (RFT) perspective

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Relational Frame Theory (RFT) has found an important place in the psychological literature since its development. Over the past 10 years; 30 empirical studies has also been accepted and published in peer-reviewed journals as a greater number of theoretical and descriptive treatment. Relational Frame Theory; despite a relatively frequent publications in the psychological literature, it has been unrecognized even by many academic behavioral psychologist or perhaps even a theory known almost wrong. RFT is a behavioral theory that explains the structure of human language and cognitions with coming together of a number of well-established principles of behavior to explain many aspects. Relational frame also has a central importance for the clinical psychopathology as it is vital for normal functioning. Here are two contexts determine the clinical significance of relational framework; relational context and operational context. While the relational context determines what people think, the operational context determines the psychological impact on what people considered. The obtained principles from RFT studies; have improved the clinical behavior analysis furthermore and have enabled to gain profundity during both analysis and intervention stage.

This presentation aims to discuss the connection on the relationship between language and cognition of the RFT and metaphors.

**Keywords:** relational frame theory, metaphor, language, cognition

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## Organicity-induced psychiatric disorders and psychopharmacologic approaches toward these cases

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DSM-IV classification system suggests the diagnosis of "psychiatric disorders due to general medical condition" for any psychiatric disorder which is considered to be arising out of the direct impact of a physical illness. There exists sufficient amount of data proving that there is a directly physiologic interaction between mental symptoms and the patient's history, physical examination and laboratory findings, and a mental disorder cannot be better explained by another mental disturbance. These indications do not happen in the form of a psychological reaction to a severe medical condition. Even in case of delirium or dementia, this diagnosis cannot be made on the basis of apparent mental disorder indications, which should also be excluded.

Psychiatric comorbidities may come into existence as a result of numerous physical illnesses. Space occupying lesions and traumas of the brain and psychiatric comorbidity associated with vascular happenings usually manifest themselves in the form of depression, anxiety, psychotic disorder, personality disorders and deterioration of social functioning. The main challenge with the diseases defined under this concept is to determine the pathogenesis of psychiatric disease under consideration. Some common characteristics should be drawn for physical illness induced psychopathology: (1) Nonexistence of previous psychiatric disease, (2) Nonexistence of premorbid personality disorder which may lead to disease susceptibility (3) Nonexistence of psycho-social destructive effects preceding disease, (4) Mental disorder being distinct and non-contestable, (5) Remission of mental disease by way of specific treatment of physical illness (This may not be the always-standing case for the diseases applying to brain depending on the recoverability of structural damage to brain), 6. Recurrence of mental disease upon termination of the specific treatment of physical illness. Psychopathological presentation of the disorders falling within the scope of the definition of "psychiatric disorders due to general medical condition" is directly associated with brain damage or brain dysfunction. The underlying factors for this this psychopathological manifestation include psychomotor behavior, personality, cognitive functions, and affected emotional properties.

Symptoms of any patient applying to psychiatric clinic should be assessed quite carefully on account of the fact that the symptoms observed in the psychiatric clinical presentations might be exactly manifested by the organic-based pathologies of the central nervous system (CNS). In both cases, speech, memory, attention, abstraction, thought, perception and mood changes may be occurring.

Psychiatric disorders due to general medical condition or arising out of organicity may represent various psychiatric symptoms ranging from moderate to severe ones. As its treatment incorporates both emergent psychiatric disorders and underlying organic disease, a clinically challenging and treatment-resistant process may appear. Treatment of organicity-induced psychiatric disorders contains a multidisciplinary treatment protocol as well as the requirement of multiple pharmacological therapies; it leads to several drug interactions and multiple side effects. Thus, in arranging psychiatric treatment, the attending physician should have a good command of underlying organic disease in terms of both treatment and prognosis.

**Keywords:** general medical condition, organicity-induced mental disorders, treatment

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## Psychodrama for substance abuse

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Using psychoactive drugs on a regular basis leads to addiction. As the taste which is being gathered from these drugs start to be daily, important changes and loses also take place in addict's life. It is really hard period for individuals to accept that he/she is an addicted and decides to have a treatment. The treatment for addiction is different from standard psychiatric treatments. First of all the addicted individual needs to accept that drug/ alcohol intake behavior should be quit or treated. Then the addicted individual should be motivated to change. The base of the treatment is formed by the changes on the addicted individual's life and him/herself. The group therapies used in the treatment of addiction are considered as completion of each therapy during several levels of this whole treatment.

Group psychotherapy is the implementation of the psychotherapeutic techniques on a group of patients. In the group environment not only interactions among the patients and patient-therapist interaction but also the behaviors of the group members are studied on to be changed. In other words, both the educated therapist's specific technique and attempts and the group itself act as a means to the change. Currently it has been one of the important and extensively methods of the psychotherapy. Group therapy has an important role on the treatment of addiction. Group therapies have been helpful on reaching the targets of the addiction treatment.

Psychodrama is an important group psychotherapy method implemented on the addiction treatment. Psychodrama is a method that instead of talking about the things in the lives of the participants' psychologic and social problems, it is an observation method by directing them to revive. In addiction treatment, the psychodrama method has been applied as an efficient treatment method used on assessing the individual's inner process and revising them, therefore gaining motivation to change and lessening the resistance towards the treatment. It is a process for a person to face with the facts in his/ her world and to live with them. Addiction is a denial disorder and the more the person realizes the reasons of what causes him/ her to be an addict, the more he/she will develop a motivation regarding a change in his/ her life.

Psychodrama can be used as an efficient therapy method by developing various coping strategies for the addict's alcohol/ drug urge, realizing the high risk occasions that would relapse them, facing how the relationships with his/ her family and environment are affected by alcohol/ drug use.

**Keywords:** psychodrama, psychotherapy, substance abuse

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## Acceptance and commitment therapy for substance abuse

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Acceptance and Commitment Therapy (ACT) is a kind of behavioral psychotherapy approach that is based on clinical behavior analysis and relational frame theory. 'Psychological rigidity' underlies the psychopathology approach of ACT and its related the two main process that consists of 'cognitive fusion' and 'experiential avoidance'. 'Experiential avoidance' is defined as a phenomenon that occurs when a

person is unwilling to remain in contact with particular private experiences and takes steps to alter the form or frequency of these events and the contexts that occasion them.

Substance use, that provides general numbness, is considered as experiential avoidance from undesirable private events. From this point of view, ACT can be thought as an effective treatment strategy for substance abuse. Indeed, the researches in this area support this idea. Clients who apply for treatment of substance abuse usually have Axis I and Axis II disorders together, and also their functionality about work or social area is not good. In the given circumstances ACT is advantageous because ACT focuses on the processes, not on diagnoses; so ACT doesn't requires different treatment protocols for each situation.

As a behavioral therapy, ACT describes addiction as 'excessive, repetitive and rigid behaviors related to substance and relevant stimuli. ACT focuses on the function of substance use, and reinforces other possible avoidance strategies.

ACT aims a life in the direction of values by increasing psychological flexibility and development of functional behavior repertoire rather than eliminating private events that triggers the problem. ACT uses six core processes to increase psychological flexibility.

These six processes are;

#### 1. Acceptance

Acceptance that is taught as an alternative to experiential avoidance, involves the active and aware embrace of those private events occasioned by one's history without unnecessary attempts to change their frequency or form.

#### 2. Cognitive Fusion

Cognitive defusion techniques attempt to alter the undesirable functions of thoughts and other private events, rather than trying to alter their form, frequency or situational sensitivity. The result of defusion is usually a decrease in believability of, or attachment to, private events rather than an immediate change in their frequency.

#### 3. Being Present

It can be defined as awareness of the here and now, experienced with openness, interest, and receptiveness. ACT promotes ongoing non-judgmental contact with psychological and environmental events as they occur.

#### 4. Self as Context

As a result of relational frames such as me versus You, Now versus Then, and Here versus There, human language leads to a sense of self as a locus or perspective, and provides a transcendent, spiritual side to normal verbal humans.

#### 5. Values

Values are chosen qualities of purposive action that can never be obtained as an object but can be instantiated moment by moment. In ACT, acceptance, defusion, being present, and so on are not ends in themselves; rather they clear the path for a more vital, values consistent life.

#### 6. Committed Action

Setting goals according to values and carrying them out responsibly.

**Keywords:** ACT, substance abuse, functional behavior analysis

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## Acceptance and commitment therapy with brief interventions

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Applying multi-sessional therapy protocols to the client especially in the prisons, nursing home, crisis centers or the outpatient clinics do not seem very realistic. In the addition to this, clients' seeking practical/quick solutions to their problems in the early sessions of therapy is high and it decreases with the following sessions. Clients tend to leave the therapy with this reason. This situation pushes the therapists to use short-time and effective interventions to their clients. An effective short-term therapy; must reach the goal before the appearance of the client's tendency to leave therapy, the process of change should begin in the first session and this beginning of rapid changes should trigger the other changes. All these features make hosting on-site, as a form concentrated of Acceptance and Commitment Therapy focused encountered ACT- Focused ACT- appears an effective brief therapy with the support of the available evidence in the long term too. ACT use the mindfulness and acceptance processes which includes the observing the existence of clients' own unwanted and unsettling internal life instead of change the contents of or to destroy them and focuses on the person's values, encourages the client to committed actions.

At the end of this experiential course we aim to develop the participants' capability of making case and behavior formulation based on ACT with the short and effective interview techniques and using ACT processes for establishing the radical changes.

**Keywords:** ACT, brief interventions, change

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## An update on alternative medicine in autism spectrum disorder

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Autism is a neurodevelopmental disorder characterized by impaired social interaction, verbal and non-verbal communication, and restricted and repetitive patterns of behavior. The most recent study says that autism affects 1 in 68 children and 1 in 42 boys. Autism often has caused negative impacts for affected children and their families. For example; effects of autism on children are impairments in social skills; difficulties in school; cognitive challenges; increased rates of anxiety, depression, and obesity; and decreased rates of employment and independent living. Radical treatment of autism spectrum disorder has not found yet. Only two drugs have been approved by the US Food and Drug Administration for the treatment of autism spectrum disorder. These drugs are risperidone and aripiprazole. The goals of these drugs on autism spectrum disorder are behavioral problems and irritability, rather than the core symptoms. Both drugs also have significant side effects, including weight gain and sedation. It is no surprise, therefore, that parents seek alternative medicine to try to help their affected children. Nearly 40% of pre-schoolers with autism are getting some kind of complementary or alternative therapy for their condition, with nutritional supplements and special diets. Alternative medicines are those that are used instead of conventional therapies. It is important to remember that not all alternative treatments have been fully researched. These treatments have little or no research to show that they are indeed effective. And some alternative treatments are potentially dangerous.

**Keywords:** autism spectrum disorder, treatment, alternative medicine

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## Psychotic disorders due to organic etiology and psychopharmacological approaches (management)

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Neurologic, metabolic or other medical conditions can cause psychotic symptoms. Frontotemporal dementia (FTD) is a disorder presented with neuropsychiatric symptoms and sometimes misdiagnosed as schizophrenia or other psychotic disorders, with the age of onset typically between 45–65 years. Changes in behavior, delusions, hallucinations or paranoia may be clinical presentations of FTD (1,2). We present a FTD case with psychotic symptoms.

The patient is a 50 years-old man, primary school graduate, not working for one year. His illness started one year ago with meaningless speech. The first episode occurred one year back and was characterized by meaningless speech, delusions and psychosocial dysfunction. One year ago he presented to mental health service with psychotic disorder. The treatment and used medications are not known.

He was admitted to our ward presenting lack of motivation, apathy, social withdrawal, sleeping too much, disorganized speech, suspiciousness symptoms. His relatives brought him to hospital due to his ongoing unusual thoughts, speaking and behavior. Patient's family history was remarkable with his sisters having dementia. A full range of examinations, including blood, metabolic, hormonal tests yielded normal results. EEG was within normal limits. Brain MRI showed focal atrophy of frontal and anterior temporal structures. Mini mental state (MMS) test score was 23/30. The diagnosis of frontotemporal dementia was made clinically. The progression of symptoms, behavioral, and personality changes over the previous year supported the diagnosis.

Risperidone and olanzapine was used for treating psychotic symptoms of the patient.

Case reports in previous literature reported that aripiprazole, risperidone and olanzapine exert positive effects to control behavioral and psychotic symptoms of FTD (3).

**Keywords:** psychotic disorders, organic etiology, management

**References:**

1. Mendez MF, Shapira JS, Woods RJ, Licht EA, Saul RE. Psychotic symptoms in frontotemporal dementia: prevalence and review. *Dement Geriatr Cogn Disord*. 2008;25(3):206-211.
2. Velakoulis D, Walterfang M, Mocellin R, Pantelis C, McLean C. Frontotemporal dementia presenting as schizophrenia-like psychosis in young people: clinicopathological series and review of cases. *Br J Psychiatry* 2009, 194:298-305.
3. Onur E, Yalinay PD. Frontotemporal dementia and psychiatric symptoms. *Dusunen Adam The Journal of Psychiatry and Neurological Sciences* 2011;24:228-238

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## The relationship between obsessive compulsive disorder and eating disorders

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Obsessive-Compulsive Disorder (OCD) is a chronic and clinically heterogeneous disorder that is characterized by the presence of intrusive, recurrent thoughts or images (obsessions) and/or attempts to avoid the obsessions through repetitive behaviors or actions (compulsions) with a prevalence ranging between 0.5–2% in general population.

The link between eating disorders (EDs) and obsessive-compulsive disorder (OCD) dates back decades and was first supported by the observation of common personality traits such as “compulsion neurosis” and “compulsive obsessive”.

Evidences for a relationship between OCD and ED can be found in epidemiological data on comorbidity: the lifetime prevalence of OCD among subjects with ED varies between 11% and 41%, 8-10 whereas in OCD patients the prevalence of ED ranges between 11 and 13%. Previous work indicates that individuals with comorbid ED and OCD develop the ED at a younger age and experience a more chronic, unremitting course of illness compared to individuals without a co-occurring OCD diagnosis.

Recent research has consistently identified personality traits that are shared between EDs and OCD, such as perfectionism and neuroticism. Given the personality traits shared between eating and obsessive-compulsive disorders, it is not surprising that these disorders tend to co-occur at greater than chance rates, indicating the presence of systematic co-occurrence.

At a genetic molecular biochemical level, the results are still inconclusive. The neurotransmitters most frequently studied in both disorders have been those involved in the serotonergic system. Biological vulnerability has also been postulated from biochemical point of view, both in ED and OCD

Understanding the mechanisms that underlie the co-occurrence between these disorders is of critical importance, as it may contribute to a better understanding of clinical course, common etiology, and aid in the development of new treatments designed to target shared underlying mechanisms of dysfunction.

The objective of this presentation is to understand the relationship between EDs and OCD by systematically reviewing epidemiological, longitudinal and family studies guided by Klein and Riso’s five models about comorbidity.

**Keywords:** comorbidity, eating disorders, obsessive-compulsive disorder

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## Attention deficit hyperactivity disorder and trauma

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Attention deficit hyperactivity disorder (ADHD) is defined by developmentally inappropriate levels of inattention, hyperactivity, and/or impulsivity, with onset before the age of 12 years. It is the most common psychiatric disorder among children, with an estimated prevalence between 6.7 and 7.8% (1). In addition to behavioral, social, and academic difficulties, previous studies demonstrated that

individuals with ADHD were more likely to experience accidental injuries including burns, fractures, and head injuries when compared with typically developing peers (2). In a retrospective study (Pastor et al. 2006), the annualized non-fatal injury rates among children aged 6-17 years were reported as 204 episodes per 1,000 for ADHD compared with 115 episodes per 1,000 among controls (OR=1.83). A cross-sectional study (Kessler et al., 2009) demonstrated that adults with ADHD had greater risk of workplace accidents and injuries than individuals without ADHD (OR=2.0). It was thought that the higher risk for traumatic injuries in ADHD is to be due to high levels of motor activity, inattentiveness, and impulsive behavior.

Previously our group investigated ADHD symptoms in children with traumatic dental injuries. We found an association between dental injuries and hyperactivity but not inattention symptoms (3). Recently, we examined ADHD symptoms in children with vocal fold nodules to document the relation between ADHD symptoms and vocal trauma. In this study children with vocal nodules had more hyperactive and oppositional scores than the controls (Erdur et al., in press). Due to 'excessive talk' which is one of the diagnostic criteria of ADHD according to the DSM-5, children with ADHD may be more prone to vocal misuse which is considered as a risk for development of vocal nodules.

This presentation aims to summarize the current literature on association between ADHD and traumatic injuries and to discuss the underlying reasons for this association.

**Keywords:** inattention, hyperactivity, impulsivity, trauma

**References:**

1. Thomas R, Sanders S, Doust J, Beller E, Glasziou P. Prevalence of attention-deficit/hyperactivity disorder: a systematic review and meta-analysis. *Pediatrics*. 2015; 135(4): e994-1001.
2. Komurcu E, Bilgic A, Herguner S. Relationship between extremity fractures and attention-deficit/hyperactivity disorder symptomatology in adults. *Int J Psychiatry Med*. 2014; 47(1): 55-63.
3. Herguner A, Erdur AE, Basciftci FA, Herguner S. Attention-deficit/hyperactivity disorder symptoms in children with traumatic dental injuries. *Dent Traumatol*. 2015; 31(2): 140-3.

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## Can we renounce scientific paradigms in psychotherapeutic process?

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The phenomenology of psychopathological states and psychotherapeutic change can be understood epistemologically. Kuhn's paradigmatic theory of scientific revolutions and Piaget's account of changes in developmental schemata are analogous. Popper's formulations of knowledge advancing by rejection of what was previously held to be true, complements both Kuhn and Piaget. The epistemology of Kuhn, Popper, and Piaget provides an interesting framework to understand psychopathological states and the process of change in psychotherapy.

From a phenomenological point of view, paradigms we cling to are habitual ways of experiencing ourselves and others and our relatedness. In the context of psychotherapeutic relationship the patient's many maladaptive paradigms about self, others, and environments come under challenge. Phenomenologically, the process of psychotherapy is experiential rather than cognitive. The patient's habitual ways of relating to others and his ingrained ways of looking at himself in relation to others is re-created in the therapeutic relationship.

The task of psychotherapy then is to facilitate paradigmatic leaps that serve the patient more successfully than his previous paradigms. The "corrective emotional experiences" that are the key to facilitation of positive change are a function of the quality of the relationship between patient and therapist rather than the therapist's interpretive skills. The process of psychotherapy demands that the therapist, in a very real sense, understands the patient's paradigms and actually enters into them. Empathic understanding means more than mere knowledge of how the patient feels but rather the capacity to actually feel what the patient is feeling.

The mystery of change in psychotherapy can thus be understood as a process by which the patient begins to experience himself in different ways, so that his previous self-experience and experience of others becomes untenable or is negated. The new experience itself is made possible by the patient's experience of his therapy and how this therapist experiences him. Indeed the paradigms of the therapist are probably equally fixed and perhaps more resilient precisely because there may be a rich and all-encompassing metapsychology available to the therapist.

The creative facilitation of paradigmatic change in the patient is made possible if the therapist can put "the world in brackets" or "theory in brackets" in encountering the patient. The corrective emotional experience of psychotherapy that allows the patient to experience himself

differently is a function of the extent to which the therapist can, leaving his preconceived ideological notions aside, get inside the patient, be where he is, and indeed share his paradigm.

This requires not merely the transient giving up of the protection of explanatory theory, but rather an attitude of mind toward the patient's experience and the therapist's own experience that allows the raw data of psychotherapy to emerge. The patient experiences a new, but more importantly his previous paradigmatic ways of experiencing self and others are contradicted by the quality of the therapeutic relationship. To facilitate this process, the therapist needs to put aside explanatory ideology and seek to understand the patients' inner world phenomenologically.

**Keywords:** scientific, paradigm, psychotherapy

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## The clinical effects, medical complications, intoxication and withdrawal symptoms of cannabis and synthetic cannabinoid use

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The rates of youth substance use have been increasing in Europe and in the U.S. Although still lower compared to Europe and the U.S., the prevalence of adolescent substance use has also been rising in Turkey. Cannabis and synthetic cannabinoids are among the most commonly used illicit drugs in Turkish youth. Cannabis and synthetic cannabinoids are associated with numerous somatic, psychiatric and neurocognitive effects in both short and longer terms. Acute effects of cannabis use are hyperemesis syndrome, impaired coordination and performance, anxiety, suicidal ideations/tendencies, and psychotic symptoms. The most prominent manifestations of synthetic cannabinoid use are anxiety, agitation, paranoia, hallucinations, tachycardia, nausea, vomiting, and diaphoresis. Withdrawal symptoms of cannabis use include irritability, anxiety, nervousness, restlessness, sleep difficulties and aggression which generally occur within 48 hours following cessation of regular cannabis use and abate within 2 to 12 weeks. Agitation, irritability, mood swings, anxiety, nausea and loss of appetite are the most commonly observed symptoms of synthetic cannabinoid withdrawal. These symptoms are seen within 1–2 hr of last use requiring repeated doses throughout the day. Cardiovascular events such as myocardial infarction, ischemic stroke and emboli, acute kidney injury and seizures are major health risks of cannabis and synthetic cannabinoids. The aim of this presentation is to review the clinical effects, intoxication and withdrawal symptoms and medical complications of cannabis and synthetic cannabinoid use.

**Keywords:** adolescent, cannabis, intoxication, synthetic cannabinoid, withdrawal

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## The neurobiology of female orgasm

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Sexual function results from a complex neurovascular process that is controlled by psychological and hormonal inputs. Like any coordinated physiological response, multiple systems are involved in this function. In respect to proper vaginal and clitoral function, a sufficient blood supply is required for a satisfying sexual experience.

Female orgasm has assumed a more puzzling role in the scientific understanding of sexuality. In the early 1900s, Freud theorized that there were two distinct types of anatomical locus of an orgasm to be a measure of developmental maturity. According to Freud, orgasm caused by clitoral stimulation was immature: by the time a woman entered puberty and was physically ready to have intercourse with a man, her center of orgasm should be transferred to the vagina.

The research of Masters and Johnson was crucial in dispelling Freud's theory by showing that there is no measurable physiological difference between female orgasm resulting from clitoral stimulation and those from vaginal stimulation. It is now widely thought that all

female orgasms are the result of direct or indirect clitoral stimulation and expressed by vaginal contractions. The clitoris can be directly stimulated by hand, mouth, or vibrator, or indirectly during certain positions of intercourse.

PDE5 inhibitors increase genital engorgement and blood flow and recently, expression of numerous PDE isoforms were found in the human clitoris, vagina, and labia minora. This further indicates that an increase in cGMP or cAMP could mediate vaginal and clitoral blood flow, and continued investigation into PDE inhibition is needed. Application of alprostadil demonstrated positive responses in genital vasocongestion, vaginal erythema, and transudate volume; however these effects were not consistently superior to placebo effects. It was found that masturbation, sexual desire, and arousal had a positive association with testosterone, while masturbation, arousal, and orgasm had a negative association with FSH levels. Estradiol was not related to any measured sexual function domain, and pain during intercourse was not associated with any hormone.

Our understanding of female sexuality was only first formally addressed roughly 50 years ago. During this period, and even now, the treatment of female sexual disorders has primarily focused on psychosocial/cultural therapy, and highlights that our limited knowledge is reflective of the inadequate treatment options available. Due to the complexity of female orgasm and female sexuality in general, a multifaceted approach, addressing neurobiological, vasoactive, hormonal as well as psychosocial/cultural aspects would be more comprehensive and would address the needs and concerns of the women that suffer from female sexual disorders.

**Keywords:** female sexuality, orgasm, neurobiology

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## Assessment and measurement tools in obesity and eating disorders

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This workshop focuses on assessment methods that have been developed specifically for the purpose of evaluating eating disorders and obesity. Specific psychopathology and general psychopathology are the two main areas which targets for assessment of patients with eating disorders. Recommended strategies for evaluating eating disorders such as using a structured interview, a self-report inventory, weight and body mass index or change in body weight and test meals will be discussed.

While there is no universally accepted assessment protocol for eating disorders and obesity, there is a consensus on the value of utilizing different assessment methods in a targeted behavior or symptoms in a broad sense.

Various assessment methods have been developed for evaluating features of eating disorders including clinical interviews, self-report measures, self-monitoring, direct behavioral observation, symptom checklists, and clinical rating scales.

In this workshop, apart from standard psychopathology assessment tools. The Eating Attitudes Test, Eating Disorder Inventory, The Bulimia Test Revised, The Questionnaire on Eating and Weight Patterns-Revised, Eating Disorders Questionnaire, Night Eating Questionnaire, Yale Food Addiction Scale, Body Shape Questionnaire, Dutch Eating Behavior Questionnaire, Binge Eating Scale, Rosenberg Self-Esteem Scale, The Eating Disorders Quality of Life Instrument, Revised Restraint Scales, The Three-Factor Eating Questionnaire, The Short Evaluation of Eating Disorders, and more will be present. This workshop will be illustrate these tools in detail in terms of how to choose, how to use, and how to rate them. For each test, studies of the reliability and validity will be presented.

The different methods for assessing psychopathology in eating disorders and obesity have different aims, strength and weakness. The chosen strategy should be guided by the purpose of the assessment and clinicians or researcher should utilize broad spectrum of presented measurement tools.

**Keywords:** eating disorders, obesity, psychometry, assesment tools

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## The role and importance of MiRNA molecules in anxiety disorders

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Genetic studies can contribute to the recognition of genes underlying the predisposition to anxiety disorders. miRNAs are small non-coding RNA molecules that have a role in regulation of neuronal gene expression. Recent research asserted that changes in miRNAs may influence the proteins involved in brain function and contribute to development of anxiety disorders and other psychiatric disorders. miRNA-mediated regulation can be affected by genetic variation which may lead to a range of anxiety related phenotypes, and in this way miRNAs are involved in the pathophysiology of anxiety disorders (1). Quach et al in their research claim that re-sequencing of 3'UTRs and miRNAs play role in the susceptibility to anxiety disorders (2).

**Keywords:** miRNA, anxiety disorders, genetic

**Rereferences:**

1. Espinosa-Parrilla Y, Muiños-Gimeno M. MicroRNA-Mediated Regulation and the Genetic Susceptibility to Anxiety Disorders. *Anxiety Disorders*, Prof Vladimir Kalinin (Ed) ISBN: 978-953-307-592-1, [InTech], 281-306. 2011.
2. Quach H, Barreiro LB, Laval G, Zidane N, Patin E, Kidd KK, Kidd JR, Bouchier C, Veuille M, Antoniewski C, Quintana-Murci L. Signatures of purifying and local positive selection in human miRNAs. *Am J Hum Genet*, 2009; 84: 316-327.

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## Medico-legal issues related to the protection of health informations in Psychiatry

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People's "right to a healthy life" is guaranteed by national and international laws. Patients may share some specific information about him/herself with a foreign person (e.g., physician). In the psychiatric examination notes are kept, tests and analyses are made; diagnoses and the results are saved to the hospital files as paper or electronic data. Besides the physician, other people can also reach to the patients' information, for treatment, education and research, and also legal purposes. As a result of technological developments, test results and reports can be easily learned from the Internet (e.g., with any patient's date of birth and identity number). Sometimes this kind of information may be obtained by irrelevant-malicious persons and it may be used to humiliate or blackmail. The protection of the information about the people's private lives and their health status are under the legal guarantee, because this is a crime. Information that is obtained by health-care delivery is inexplicable, except in cases permitted by law. Except legal and moral aspects of the current and justifiable reason, the disclosure of the information, that is likely to harm the patient, requires the staff and others' civil and criminal responsibility. Even in operations made by research and educational purposes, the patients' identity is inexplicable without the consent of the patient. The patients' information should not be used in the scientific books, articles and presentations, patients will be able to decipher, for example; name, nickname, title, photo, address and so on; if permission is taken from the patient, it should be used carefully. With the physician's responsibility, keeping secrets, there are also tasks to notice any offense which he learned from the patients or their relatives, or he/ she seeing the evidences. This paradoxical situation has led to some of the ethical debate. Considering benefits of the victims, homicide or suicide risk, public safety, incest, rape, child abuse and so on. Serious issues should be carefully recorded. The notifications of such dangerous situations to the competent authorities and patient' relatives seem also appropriate by professional organizations.

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## Practical issues in forensic psychiatry practice and report writing

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Forensic psychiatry is a subspecialty of psychiatry in which scientific and clinical expertise is applied to legal issues in legal contexts embracing civil, criminal, correctional or legislative matters. There are some different situations between clinical psychiatry and forensic psychiatry (e.g. goals, evaluation processes, report writing, security, etc.).

In our country, in addition to diagnosis, treatment and follow up of psychiatric disorders, psychiatric professionals have an important role in evaluating criminal competence and responsibility, civil competence, to determine the rate of impairment and disability arising from psychiatric disorders, disability determination resulting from personal injury or sexual harassment.

The Courts demand that expert witness provide forensic services to guide the court in matters that are beyond the knowledge of the lay person. The demand of expert witness services continues increasingly. This course will be held with case examples of the above issues in an interactive process of exchange of knowledge and experience will be shared.

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## Euthanasia, an act of empathy

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### History

Euthanasia comes from the Greek words, Eu (good) and Thanatos (death) and it means "Good Death", "Gentle and Easy Death." Until the end of the nineteenth century, euthanasia was regarded as a peaceful death, and the art of its accomplishment.

Today is the term euthanasia used as the act of deliberately ending a person's life to relieve suffering.

There are two main classifications of euthanasia:

- Voluntary euthanasia - euthanasia conducted with consent.
- Involuntary euthanasia - euthanasia conducted without consent. The decision is made by another person because the patient is incapable to doing so himself/herself.

There are two procedural classifications of euthanasia:

- Passive euthanasia - when life-sustaining treatments are withheld.
- Active euthanasia - lethal substances or forces are used to end the patient's life, conducted by the patient or somebody else.

### Euthanasia in the Netherlands

In the 1973 "Postma case", a physician was convicted for having facilitated the death of her mother following repeated explicit requests for euthanasia. While upholding the conviction, the court's judgment set out criteria when a doctor would not be required to keep a patient alive contrary to their will. In 2002, the Netherlands passed a law legalizing euthanasia including physician-assisted suicide. This law codifies the twenty-year-old convention of not prosecuting doctors who have committed euthanasia in very specific cases, under very specific circumstances. This practice "allows a person to end their life in dignity after having received every available type of palliative care. The law allows medical review board to suspend prosecution of doctors who performed euthanasia when each of the following conditions is fulfilled:

- the patient's suffering is unbearable with no prospect of improvement
- the patient's request for euthanasia must be voluntary and persist over time (the request cannot be granted when under the influence of others, psychological illness or drugs)
- the patient must be fully aware of his/her condition, prospects, and options
- there must be consultation with at least one other independent doctor who needs to confirm the conditions mentioned above
- the death must be carried out in a medically appropriate fashion by the doctor or patient, and the doctor must be present

- the patient is at least 12 years old (patients between 12 and 16 years of age require the consent of their parents)
- Euthanasia remains a criminal offense in cases not meeting the law's specific conditions, with the exception of several situations that are not subject to the restrictions of the law at all, because they are considered normal medical practice:
- stopping or not starting a medically useless (futile) treatment
  - stopping or not starting a treatment at the patient's request
  - speeding up death as a side-effect of treatment necessary for alleviating serious suffering
- Euthanasia of children under the age of 12 remains technically illegal; however, several cases (of neonates) have been documented and a protocol has been developed to be followed in those cases. Prosecutors will refrain from pressing charges if this Groningen Protocol is followed.
- The philosophical, medical and legal aspects of euthanasia will be discussed in this presentation.

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## Unexpected pregnancies, unforeseen relapses

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Pregnancy and giving birth to a child, maybe idealized as the best part of their lives of many women, but may become real catastrophe for the rest, whom do not welcome it. As educated women interact in the community more and postpone being a mother or vice versa, across low or middle social levels who lack for proper inception of pregnancy knowledge, becoming pregnant unexpectedly means an obvious risk factor for existing or totally new psychiatric problems during perinatal period. Whether expected or not, pregnancy and the postpartum periods are times of increased vulnerability for the onset or relapse of a mental illness. The symptoms can range from mild to severe, also ranging as diagnosis, from anxiety to psychosis. When it comes to be unexpected, it is shown to be the reasons of giving up the ongoing psychiatric drugs and follow-ups more suddenly, which are also risk factors for relapses.

Being not ready, emotionally or physically, for pregnancy poses a challenge for many women. Unexpected pregnancies, not only for the women but also for the partners seem to be impressive for their relationship and can be a trigger point for possible relationship problems. From obstetrical point of view, an unexpected pregnancy means more risks pronounced as abortion, premature birth, still birth and baby loss; bringing the accompanying many related psychiatric risks. Even within the perinatal psychiatrists, different opinions are available about the transition rates of psychotropic drugs on the baby's central nervous system during the early post-partum period and it cannot be proposed as a totally "black or white" situation. This uncertainty drives mother to hesitancy, resulting mostly as quitting vital psychotropic drugs, antipsychotics, mood stabilizers or even antidepressants. Also it means to cause resistance to necessary drugs which need to be started during perinatal period first in a lifetime. Unexpected pregnancy must be admitted as a separate risk factor for psychiatric problems during perinatal period. Screening and a close follow-up will prevent negative outcomes.

**Keywords:** unexpected pregnancy, relapse, perinatal psychiatry

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## Acceptance and commitment therapy with brief interventions

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Applying multi-session therapy protocols to the client especially in the prisons, nursing home, crisis centers or the outpatient clinics do not seem very realistic. In the addition to this, clients' seeking practical/ quick solutions to their problems in the early sessions of therapy is high and it decreases with the following sessions. Clients tend to leave the therapy with this reason. These situations push the therapists to use short-time and effective interventions to their clients. An effective short-term therapy; must reach the goal before the appearance

of the client's tendency to leave therapy, the process of change should begin in the first session and this beginning of rapid changes should trigger the other changes. All these features make hosting on-site, as a form concentrated of Acceptance and Commitment Therapy focused encountered ACT- Focused ACT- appears an effective brief therapy with the support of the available evidence in the long term too. ACT use the mindfulness and acceptance processes which includes the observing the existence of clients' own unwanted and unsettling internal life instead of change the contents of or to destroy them and focuses on the person's values, encourages the client to committed actions.

At the end of this experiential course we aim to develop the participants' capability of making case and behavior formulation based on ACT with the short and effective interview techniques and using ACT processes for establishing the radical changes.

**Keywords:** ACT, brief interventions, change

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## Challenges encountered in the treatment of PTSD: Dissociative symptoms

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Dissociation involves the alteration of consciousness, memory, personal information, and identity, items that are normally associated and integrated. Steinberg organized the dissociation in five major dissociative symptoms: amnesia, depersonalization, derealization, identity confusion and identity change. Numbness, derealization, depersonalization and amnesia are frequently observed dissociative symptoms during and after the trauma. Dissociative pathologies increase with prolonged and repeated traumas.

Dissociative subtype is added to Post-traumatic Stress Disorder (PTSD) diagnosis in Diagnostic and Statistical Manual-5 (DSM-5; APA, 2013). PTSD patients with dissociative subtype exhibit marked symptoms of derealization and/or depersonalization. Psychiatric comorbidity, functional impairment and suicidality are observed in dissociative subtype more than patients with PTSD alone. Unfavorable effects of dissociative symptoms on the clinical course of psychiatric disorders are known. These patients are more resistant to treatment. Treatments for PTSD with dissociative subtype should be designed to directly reduce depersonalization and derealization. Exposure-based therapies can be effective in cognitive restructuring and skills training in affective and interpersonal regulation. However, dissociative symptoms may block emotional learning in a classical conditioning paradigm and exposure treatments should be used with caution in patients with significant dissociative symptoms. So, levels of dissociative psychopathology should be assessed before the beginning of exposure-based treatments. Also, Eye Movement Desensitization and Reprocessing (EMDR) can be useful. But, additional precautions should be taken beyond the standard EMDR method. During EMDR, orientation to the time, place or safety may deteriorate with the emergence of intense emotion in patients with dissociative defenses. Psychotropic medication is not a primary treatment for dissociative processes. Pharmacotherapy for dissociative disorder patients typically targets the hyperarousal and intrusive symptoms of PTSD. Hypnotherapy can be used for positive restructuring of traumatic, dissociative memories in PTSD patients.

**Keywords:** post-traumatic stress disorder, dissociation, treatment

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## Is schizophrenia a structural or a chemical disorder?

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Schizophrenia is a chronic, severe, and disabling brain disease. Understanding what causes schizophrenia is becoming harder and harder. Numerous theories exist about the causes of schizophrenia, ranging from viruses to genetics, and from life circumstances to biochemistry. One cause alone is unlikely, but it seems that biochemistry plays an essential role in its occurrence.

Schizophrenia is caused by anomalous brain structures:

This hypothesis essentially states that schizophrenia is a disease caused by something wrong with the actual structure of one's brain,

specifically with regard to the relative size of the cerebral cortex and/or other nearby regions of the brain. In small ways the brains of people with schizophrenia look different than those of healthy people.

It was found that patients with schizophrenia showed significantly greater decreases over time than controls in whole-brain volume, whole-brain gray matter, frontal gray and white matter, parietal white matter, and temporal white matter volume, as well as larger increases in lateral ventricular volume. These findings confirm that schizophrenia is associated with progressive structural brain abnormalities affecting both gray and white matter. Functional scanning of the brain studies tend to show low levels of activation in schizophrenic patients' middle frontal cortex and inferior parietal cortex compared to normal people included as control subjects. Schizophrenic brains are thus different in terms of total tissue volume, and activity. However, there is most often no obvious single point of structural damage to point at as the specific location in the brain where schizophrenia is happening.

Schizophrenia is caused by a biochemical imbalance within the brain:

Despite the lack of evidence, the chemical imbalance theory remains very popular today. The brain uses a number of chemical messengers, called neurotransmitters, to communicate among its millions of individual neurons. This theory originated from the observation that drugs which block the transmission of the neurotransmitter dopamine within the brain appear to reduce the symptoms of schizophrenia. The reasoning behind the origin of this hypothesis was, since schizophrenic symptoms are reduced when dopamine transmission is suppressed, then perhaps schizophrenia is caused by too excessive dopamine within the brain.

While the dopamine hypothesis has been dominant for a long time, it has taken a research beating in recent years, and it is no longer so clear that dopamine alone is responsible for causing schizophrenia. Today, it appears more likely that other neurotransmitters are involved in creating conditions for schizophrenia and psychosis, including serotonin, and glutamate.

Finally, it still has been not found any clear biochemical imbalance or structural brain abnormalities that they are consistently associated with schizophrenia. Structural and biochemical measures have implicated some abnormality in all two components of these interacting systems. It is uncertain which are primary and which are secondary.

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## Impulsivity and decision making in bipolar disorder

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Impulsivity can be described as giving unplanned reactions without considering its results, and it is actually predisposition. In other words, impulsivity is a behavior pattern rather than a single action. It can involve taking risky decisions, highly risky attitudes, insufficiency of response inhibition and making rapid decisions.

There is often an increase in predisposition towards reward without sufficient plans, impulsive behaviors in bipolar disorder, too. However, risk taking behavior is a diagnostic criterion for mania. Increased impulsivity is a dimension of mania, the increased impulsivity could be the underlying cause for the symptoms such as the increase in risky sexual behaviors, random expenditures, dangerous driving and suicide thoughts in the symptomatic periods of bipolar disorder. Some studies have also shown that there has been a permanent increase in the impulsive characteristics in the patients who have recovered or those with minimal symptoms. In this case, it is more likely that impulsivity is a trait marker of the disease.

The predisposition towards risk taking seems to have similar characteristics with impulsivity but they are often hard to be described within certain behavior because they are not synonymous. Risk taking behavior is assumed to be choosing a strategic response. It is a behavior which is determined in situational terms while the control on behavior has decreased in impulsivity. Whether risk taking results from a deficit in impulse control is disputable. In the studies in which Iowa gambling task (IGT) was used with euthymic patients with Bipolar I disorder, there are studies which have reported increase as well as those which report no difference in risk taking behavior.

Whether both impulsivity and risk taking will be potential endophenotypes for bipolar disorder has been researched in the studies.

In this panel session, we will be looking over the studies done in bipolar disorder in terms of impulsivity and risk taking and sharing the results of the study which has been done by us in this field (in which we evaluated the impulsivity and risk taking behavior in our euthymic patients with bipolar I disorder and their first degree relatives without disease, and researched whether risk taking is a separate executive dysfunction which is independent from impulsivity, and whether there is an increase in risk taking in parallel with the increase in impulsivity, and whether both of them will be potential endophenotypes).

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## The importance of functional impairment-quality of life concepts in attention deficit hyperactivity disorder

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Attention deficit hyperactivity disorder (ADHD) is a widely seen neurobehavioral disorder it is characterized by inattention, impulsivity, hyperactivity that begins in early childhood and progresses with symptoms that negatively affect daily living functions in many aspects. ADHD symptoms are a necessary but not sufficient for diagnosis. In addition to symptom assessment, systematic evaluation of functioning by specialists who work in the field of ADHD is also important. Diagnostic criteria are met only if these symptoms cause substantial impact in psychosocial functioning. For a diagnosis of ADHD, functional impairment (FI) related to the symptoms must occur in at least two settings (at home and at school or work).

Impairments occur in many areas of functioning in ADHD and may continue through adulthood. The FI experienced by patients with ADHD in school, social abilities, and family relationships negatively affect patients, their families, and the community. Assessing an individual's functioning is critical in differentiating the disorder from a temporary or small problem, designing a treatment plan for the patient, identifying treatment targets, and estimating future adaptive functions and prognosis. There is growing recognition of the importance of functioning as a direct and real life marker of impairment and burden of illness. Improvement in ADHD symptoms shows a small to moderate but statistically significant correlation with improvement in functioning, quality of life and adaptive life skills both in children and in adults. The concepts of functional impairment and quality of life are overlapping but distinct concepts. Functional impairment describes the patient's inability to meet age appropriate demands for social, family and school success, to avoid risk and to maintain self-esteem. Quality of life is a multi-dimensional construct that reflects the patient's perception of impact of disease on health, functioning, overall well-being and life satisfaction.

The lack of a comprehensive and practical functional impairment scale for ADHD makes it difficult to assess not only ADHD but also appropriate treatments. Although general functional impairment scales, which evaluate functional impairment, are used all over the world, few scales that evaluate disease-related functional impairment are available. For the purpose of evaluating functional impairment in clinical trials, it is necessary to have a reliable, valid and responsive measure of ADHD-specific functional impairment.

In this presentation, importance of functional impairment and quality of life concepts will be discussed and also The Weiss Functional Impairment Rating Scale-Parent Report (WFIRS-P) which is a brief, parent-reported questionnaire developed specifically for children and adolescents with ADHD will be introduced to participants.

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## Eating disorders in bariatric surgery candidates

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Obese people have higher risks of both chronic physical illness and mental illness. Obesity is reported to be positively associated with psychiatric disorders, especially in people who seek obesity treatment. While most conventional treatments for individuals with severe obesity have a modest and short lived impact; bariatric surgery has been consistently shown to result in long-term marked weight loss and significant improvement in medical comorbidities. Therefore, bariatric surgery is increasingly popular.

Reported rates of eating disorders among bariatric surgery patients are variable because of different assessment methods and definitions of eating disorders. Much of researches have focused on binge eating disorder, "loss of control" eating, and other maladaptive eating behaviors such as "grazing" and night eating syndrome, since they have been fairly consistently linked to attenuated weight loss and/ or greater weight regain post-surgery. But generally two types of eating disorders seen in obese people. One of them is binge eating disorder the other is night eating syndrome.

Prevalence of night eating syndrome in the general population is estimated to range from 1.1% to 1.5%, with generally comparable proportions of each gender (1,2). Depending on the diagnostic criteria and the time of assessment the prevalence of night eating

syndrome in bariatric surgery candidates varied widely from 8.9-55%<sup>3</sup>. Studies by using stricter diagnostic criteria suggest a prevalence of 2–20% in bariatric surgery samples<sup>1</sup>. The other type of maladaptive eating behaviors as “Grazing” and/or “picking and nibbling” have been reported at a rate of 19.5% to 59.8% in bariatric surgery patients (4).

Studies suggest some degree of overlap between night eating syndrome and binge eating disorder. Baldofski et al., reported that 8.3% of their bariatric sample met full diagnostic criteria for night eating syndrome and 4.3 %met full criteria for binge eating disorder with %3.9 of the sample meeting criteria for both (3).

There is a lack of literature about the development of traditional eating disorders such as anorexia nervosa, bulimia nervosa, eating disorder not otherwise specified as well as sub-syndromal eating disorders, in patients after they have undergone surgery.

Bariatric surgery affects eating practices immediately and radically, because of the anatomical and physiological changes to the digestive tract<sup>5</sup>. When treating severe obesity, restriction and change of individuals’ eating practices are the targets, and especially when it comes to bariatric surgery. Pharmacotherapy, cognitive behavior therapy, progressive muscle relaxation and bright light treatment are some methods that used in this group treatment.

As a substantial proportion of patients report problematic eating behaviors before and after bariatric surgery, a comprehensive preoperative psychiatric assessment by a specialist for eating disorders is very important (4).

### References

1. De Zwaan M, Marschollek M, Allison KC. The night eating syndrome (NES) in bariatric surgery patients. *Eur Eat Disord Rev* 2015;23(6): 426-434.
2. Kucukgoncu, S, Tek C, Bestepe E, Musket C, Guloksuz S. Clinical features of night eating syndrome among depressed patients. *Eur Eat Disord Rev* 2014; 22(2): 102–108.
3. Baldofski S, Tigges W, Herbig B, Jurowich C, Kaiser S, Stroh C, et al. Nonnormative eating behavior and psychopathology in prebariatric patients with binge-eating disorder and night eating syndrome. *Surg Obes Relat Dis* 2015;11(3):621-626.
4. Conceicao E, Orcutt M, Mitchell J, Engel S, Lahaise K, Jorgensen M, et al. Eating disorders after bariatric surgery: a case series. *Int J Eat Disord* 2013;46(3):274-9.

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## Effects of antidepressants on cognition

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In depression mostly attention, executive functions, processing speed and memory are deteriorated. In this sense, it is well known that cognitive function represents one of the best predictors of functional outcome in psychiatric patients. For this reason cognitive impairment emerges as a potential target for both pharmacological and psychosocial treatments, with the final goal of improving functioning.

Results of the studies about cognition of MDD patients on different drug regimens after treatment will give important clues to clinicians to evaluate different drug treatments done in the treatment of MDD group.

Studies often focus on cognitive changes in patients with MDD before MDD episode and during remission without taking drugs.

Since most current antidepressant medications have no direct pro-cognitive effects only indirect effects mediated by mood improvement. In this line, the conventional antidepressants available so far seem not to have enough robust precognitive effects.

High anticholinergic activity load is recognized increasingly for its association with negative cognitive effects, and anticholinergic activity is present, often in high doses, in many antidepressants. In a study anticholinergics are found to have small effect on cognition. The association between anticholinergic activity and cognitive decline may be related to level of cognitive function at baseline.

The serotonergic-noradrenergic reuptake inhibitors (SNRIs) seem to have a better cognitive profile than serotonin reuptake inhibitors (SSRIs) seem to have similar effects and SSRIs were superior to tricyclic antidepressants.

In animal studies agomelatine improved memory functions. Agomelatine 25-50 mg/day improved positive affective memory in healthy controls. Agomelatine 25 mg/day improved cognitive functions (but not statistically significant) in 15 patients with fibromyalgia after 12 weeks treatment compared to before treatment.

Several studies indicate that vortioxetine a multimodal serotonergic drug may have therapeutic effects on cognition (e.g., memory and executive functioning) that exceed that of standard antidepressants. Vortioxetine, which was approved in 2013 for the treatment of MDD, acts both by blocking serotonin activity and by modulating serotonin receptor activity. It works as a 5-HT<sub>3A</sub> and 5-HT<sub>7</sub> receptor antagonist, 5-HT<sub>1B</sub> receptor partial agonist, 5-HT<sub>1A</sub> receptor agonist, and inhibitor of the serotonin transporter. In one trial in patients 65 and over, vortioxetine showed improvement not only in depressive symptoms compared to placebo, but also in processing speed, learning, and memory.

In a study 100 bipolar depressed patients, 100 controls were included. All patients were allowed to take antidepressant, benzodiazepine and mood stabilizer medications. Brief assessment of Cognition in Schizophrenia was used before and after study procedure. After total sleep deprivation and light therapy 31/42 had remission in depression but just in symbol coding was improved other cognitive domains such as attention, verbal fluency and memory, executive functions, psychomotor coordination were unimproved compared to 58 patients with normal treatment procedure and controls. Neuropsychological deficits persisted in bipolar depressed patients after total sleep deprivation and light therapy applied together for 5 days and nights.

Donepezil, memantine, erythropoietin, modafinil, galantamine, ketamine, oxytocin, omega 3, scopolamine, and S-adenosyl-methionine showed beneficial effects on cognition in major depressive disorder.

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## Evaluation of obesity

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Obesity, one of our society's biggest health issues, is a multidirectional and chronic disease with a somatic appearing. Heritage, neurotransmitters, eating habits and activity levels are among the factors considered to be responsible for the etiology. Formerly obesity had been considered mostly as a physiological disease but the studies about the psychological aspect of this disease increased powerfully in recent years.

Numerous studies showed that there is a high comorbidity rate with psychiatric disorders or mutual personality traits about eating patterns among obese people. These findings supports that obesity is a kind of disease with a psychological aspect. From this point of view it won't be wrong to say that obesity must be handled by a multidisciplinary approach.

Eating behavior which stands in the center of obesity is in a relationship with psychological factors as well as the physiological ones. Different psychological theories emphasize different components of these relationships such as unresolved dependency needs, coping strategies or faulty cognitions. Despite these differences it is clear that obesity has a psychological component. And studies regarding prevention and treatment of obesity would be inefficient in case of omission of this component.

When we consider that obesity is a life threatening disease which pervades gradually, we can't ignore the need for research associated with diagnostic and treatment processes. An accurate evaluation constitutes the first step of both primary and secondary care. In the light of these findings we can say that psychiatric evaluation is indispensable part of this process. Hence, our study aims to provide a comprehensive knowledge about psychiatric evaluation of obesity.

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## Oxytocin and conduct disorders

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Oxytocin is a peptide hormone produced from paraventricular and supraoptic nuclei of hypothalamus. It has both peripheral and central nervous system functions. It is considered as having roles in social life, bonding, cohabiting, meeting, empathizing and trusting and regulating stress. Recent studies on oxytocin are promising positive effects on a variety of psychiatric problems including autism, depression, anxiety and disruptive behavioral disorders. At the same time studies on oxytocin (OXT) gene knockout mice showed that their social behaviors decreased where their aggressive behaviors increased.

Conduct disorder (CD) is a repetitive and persistent pattern of behavior characterized by aggression towards people and animals, harming the property of others, and serious violations of age-appropriate rules (American Psychiatric Association 2013). CD is a disorder that threatens both the child and those in their life. CD is the most common child mental health problem, with prevalence rates of at least 5%. Conduct disorders in childhood are important risk factors for adulthood psychopathology. Therefore early intervention of CD is crucial. Early diagnosis and intervention is crucial, because CD is associated with a variety of negative consequences such as low academic

achievement, increased social problems, and poor peer relations, which lead to comorbid psychiatric disorders, substance use disorders, adverse relationship problems (e.g., adolescent pregnancies or sexually transmitted diseases), as well as criminal problems and antisocial behaviors. Considering all these risk factors, CD is one of the most important public health problems and deserves effective treatment as early as possible. In fact there is no specific treatment for conduct disorder. Parent management, treatment and psychiatric medications for comorbid conditions such as attention deficit hyperactivity disorder and depression are highly used.

Callous unemotional (CU) traits of CD has different properties, this trait develops relatively independent of parenting. These CU traits are considered as having less fear, less responsive to emotional stimuli. They have also less circulating OXT and higher methylation levels of OXT gene. Recent study has shown that salivary OXT levels in individuals with CU are lower than healthy ones. Intranasal administration of OXT has effects in increasing trust in others and decreasing aggression towards others in some studies. It increases social emotional memory and face processing mechanisms in amygdala. There is growing concern for the use of exogenous OXT for empathy, appropriate emotional processing, trust and attachment. However, the mechanism between role of OXT and psychopathologies remain unclear.

In this presentation; studies on physiological effects of OXT and roles of OXT genes in CD will be reviewed. Future applications of potential OXT use in children and adolescents with conduct disorders will be discussed.

**Keywords:** callous unemotional, conduct disorder, oxytocin

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## Mood disorder and theory of mind

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Despite the mood disorder is identified as one of the most frequent illness of humankind for 2500 years, it's recently acknowledged as an important topic of public health. Mood disorders are serious, chronic and common diseases which are associated with severe inability to work, social and economic losses. Major depressive disorder, bipolar disorder, dysthymia and anxiety disorders are mood disorders which frequently encountered in clinic. Symptoms of mood disorder are associated with impaired cognitive and psychosocial functioning. A successful social interaction depends on many cognitive abilities such as accurate perception, accurate interpretation of social signals, motivation, attention and decision making.

Social cognitive abilities are specialized cognitive abilities to enable communication of human society. Theory of Mind (ToM) is accepted as one of the most important ability of social cognitive abilities and regarded as one of the key elements for successful social interaction. Theory of mind is defined as interpreting and making assumptions about others' intentions.

The theory of mind deficits in mood disorders are studied in patients with bipolar disorder at first, then presence of theory of mind deficits in other mood disorders are studied as well.

It's been demonstrated by studies and imaging methods that ToM abilities reduced in mood disorders. Although researches on the relationship between ToM abilities and clinical variables such as other cognitive functions, disease duration and symptoms are shown versatile results, limitations are mentioned in many studies. There are several studies that reported the relationship between ToM abilities and disease duration and symptoms below the threshold. In addition, different results have been reported from test of ToM, depend on the patients have emotional or cognitive properties.

Mood disorders and especially the fundamental theory of mind pathology observed in depression are; to be able to comprehend the representation of the mental states, but an abnormality presence during the examination/attribution of such mental states. Theory of mind deficit in these particular patients is not based on to comprehension of the representation of mental states; on the contrary it is based on over representation. These patients ascribes to other patients exaggerated knowledge and mental state.

A hypothesis using brain imaging techniques and neuropsychological tests formed that pathophysiology of mood disorder might be related to functional imbalance in different regions of the neural circuit and it has been observed that especially the prefrontal cortex plays an important role in the pathophysiology of mood disorders. In the studies, Biological abnormalities in the prefrontal lobe of patients with mood disorder in remission are supported reduction in the Theory of mind performance after symptomatic remission. On the other hand, multiple correlations in mood disorders has been detected between neurocognitive functions and ToF and it has been presented that cognitive variables have a limited impact on the performance of ToF.

It is investigated whether the ToM deficits are permanent or periodical, and revealed that ToM also defective for patients in remission. Thus, ToM deficits are found to be present at all stages of the disease. This result led the idea that it might be the one of the reasons for reduction in functionality of the patients in remission period.

It is detected that the ongoing theory of mind deficits in patients at remission are under risk of recurrence and corrupted social functionality than those who do not. Accurate understanding of the theory of mind which directly related to social interaction and functionality of patients would be an important step in the development of treatment and rehabilitation goals.

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## Addiction from a developmental psychopathology

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Substance abuse and drug addiction are the common psychopathologies among the general population. Studies show that there are robust associations between the age of onset of drug use and abuse and the severity and chronicity of addiction, and begin in adolescence period is especially vulnerable time for the onset of drug use and abuse and the transition to addiction. While there are a many risk factors associated with the onset of drug abuse and drug addiction, there is a growing body of evidence pointing to the influence of early adverse experiences, both child neglect and maltreatment, as well as drug use and abuse in parents and/or primary caretakers. Recently, evidence suggests that the genetic, epigenetic, and neurobiological factors alongside experiences of adversity can be key factors of development of drug addiction.

Recent data show that there are prominent roles for genetic and psychosocial factors in the transmission of substance abuse from parent to child. Moreover, there has been significant progress in identifying specific genes that influence substance abuse disorders.

In understanding any developmental pathway to addiction, it is important to recognize the potential mechanisms by which such a pathway may begin as early as conception. Parental substance use has deleterious effects on fetal development, which may be reflected in increased rates of preterm delivery, low birth weight, and multiple congenital abnormalities. Additionally, substance abuse and addiction during pregnancy are commonly associated with chronic prenatal stress in mothers resulting in changes to maternal stress and immune systems that may have direct effects on similar systems in the fetus. Many researches shows that prenatal stress has negative effects on birth outcomes and postnatal development, especially in the domains of emotion regulation that may predispose to greater risk for drug abuse and addiction. At the postpartum period, addicted parents give infants care which is facilitated neglect and abuse. High rates of abuse and neglect in turn expose children to chronic stress and adversity that has been linked to increased risk for later psychopathology including drug use. Indeed, for addicted parents, caring for a child is less rewarding and more stressful owing to the dysregulation between stress and reward neural circuits. Thus, prenatal and postnatal parental substance use may have a detrimental effect on the developing child early on during infancy through several pathways but especially including those relating to how parental care impacts child stress regulatory capacities at the neural, psychobiological, immunologic, genetic, and endocrine levels and how those early perturbations in parental care are transmitted forward.

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## Neurobiology of emotion dysregulation

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Emotions are the most important determinant of behavior, ideas and experiences. To regulate the emotions is important for life.

Emotions affect the attention, decision-making, memory, physiological responses and social interaction. Emotion regulation is the ability to control the spontaneous reactions to ongoing life needs that is socially tolerable and sufficiently flexible. Anxiety disorders, depression, eating disorders, substance abuse and many psychiatric disorders are closely associated with emotional regulation. All these factors increase the scientific curiosity of the relations with neurobiological and developmental processes of emotion regulation. Neuroimaging studies of brain tissue have revealed that ventral anterior cingulate, ventromedial prefrontal cortices, lateral prefrontal and the parietal

cortices are involved in the emotion regulation.

Prefrontal cortex plays a key role in the cognitive regulation of emotions. A variety of fMRI studies during negative emotional experiences in trying to regulate the cognitive path has found that increased activity in ventrolateral, dorsolateral and dorsomedial prefrontal cortex. These areas are particularly active in the re-evaluation process. Ventromedial prefrontal cortex, amygdala and subgenual anterior cingulate cortex is involved in emotion appraisal. In this presentation, we will be discussed the neurobiology of emotion dysregulation and the underlying basis of neural circuits of emotion regulation.

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## Association between obesity and temperament

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In recent times increasing rates of obesity in developing and industrial countries has been stated. This shows that obesity is a crucial health problem in recent times. Bariatric surgery used in the treatment of obesity has been found as an efficient method in the treatment of obesity and the comorbid medical situations with obesity. Psychopathological features are considered as the risk factors of weight loss and the protection of weight loss after the bariatric surgery.

Major Depressive Disorder and bipolar disorders are privileged important comorbid psychiatric disorders in obesity patients. MDD is pointed as an important risk factor in the occurrence of obesity. Besides obesity has been identified as a predisposal factor in the emergence of mood disorders. It's been stated that patients with morbid obesity have more depressive symptoms, low level of quality of life, worse body image. And they are more depressive as a result of the physical problems. There is a cumulative effect in the concept of comorbid mood disorders in obesity. Furthermore, presence of obesity has negative influence on prognosis of the treatment of mood disorders. At the same time identification and treatment of psychopathological conditions especially mood disorders, have an important place on the follow up of the bariatric surgery that is used in the treatment of obesity.

The similarities between affective temperaments and mood disorders in the concept of genetic transmission and pathophysiological mechanisms were asserted by Akiskal and consistent findings were found by the lots of studies. The significant associations between affective temperaments and the course of mood disorders have been showed in multiple studies. Akiskal defined five affective temperaments by considering mood disorders: depressive, hyperthymic, cyclothymic, irritable, and anxious.

Even though there are multiple studies relating with obesity and mood disorders we have limited knowledge considering the association between affective temperaments and obesity. In the study of Amann and colleagues (2009), they stated that stimulus seeking and self-stimulating behaviors in the obesity patients with cyclothymic temperaments may cause obesity by influencing eating behaviors.

The studies investigated the personality features of morbid obesity patients found that patients with morbid obesity was more inward-looking, more anxious, presenting more hostile personality features and more novelty seeking and worse ability of regulating themselves than healthy people. Another study found that the personality sub-scales of outwardness, adaptability and neurotism was associated with obesity nonetheless sub-scale of outwardness predicted the kilos gained in two years.

The study conducted to investigate the association between obesity and temperament found that people with morbid obesity had higher rates of the temperaments such as cyclothymic, irritable and anxious, vis-à-vis people without obesity. Beside this Alciati and colleagues stated that the rates of bipolar spectrum illness were impressively high among the patients with obesity-Grade III who appealed for bariatric surgery. Multiple researchers support that cyclothymic and hyperthymic temperaments may be the subthreshold variants of bipolar disorder. Hence, bipolar spectrum illness which has high rates among bariatric surgery patients, which was indicated in multiple studies may be associated with temperament features especially cyclothymic.

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## Neuropsychological effects of obesity

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Obesity has taken its place as the one of the most important health issues in industrial and developing countries contemporarily. Lots of studies have been conducted on the subject of neurological and psychiatric features of obesity for the purpose of gaining a better understanding of this health issue. As the result of these studies, it's been stated that obesity may be a brain disease and people with obesity have structural and functional changes in their related brain areas, such as decreased hippocampal volume or decreased blood flow in this area, hypothalamic inflammation, and gliosis, etc. Therefore, other important findings that indicate obesity as a mental health issue has been obtained through the investigation of neuropsychological features.

Studies conducted on the people with obesity found that verbal memory, working memory, long memory and verbal recognition performances are lower on people without obesity. Therefore, it's been showed that increasing in the severity of obesity was associated with the lower performances of the subdomains of learning, delaying recall and verbal recognition. At the same time, there are findings of literature show that losing weight these cognitive disturbances improve. Beside this, it was evaluated that multiple psychiatric symptoms may also cause low obesity-related memory and learning performances.

One of the important neuropsychological features of the people with obesity is impulsivity. Multiple studies indicated that people with obesity are more impulsive than people without obesity. Thus, it's thought that people with obesity have more pathological features regarding motor and other impulsive characteristics. Beside this, it's been indicated that people with obesity have lower impulsivity related performances in the decision-making and planning process. As a consequence of this situation, it's been thought that people with obesity have difficulties on the controlling of the multiple feeding parameters.

It's been thought that executive functions are adversely influenced by obesity and also can cause progression of obesity. It has been evaluated that working memory, regulation of emotions, planning, problem-solving and mental flexibility functions that all are connected with executive functions are impaired in individuals with obesity regarding individuals without obesity. Especially the studies conducted on mental flexibility and obesity stated that the ability to change inappropriate behaviors is diminished in individuals with obesity. Furthermore, there are neuropsychological and brain imaging studies showing important association between executive functions and the psychopathologies that are highly related to obesity such as eating disorder and eating addiction.

Multiple studies have been conducted to evaluate the neuropsychological characteristics of obesity. Despite this, it may be said that there are few studies that evaluate the spatial perception skills in individuals with obesity. Spatial perception is related to the organization of inputs that come from vestibular somesthetic and proprioceptive afferent systems. New studies are needed to understand the spatial skills of individuals with obesity in point of the association between obesity and sensory systems, psychopathological features, impulsivity, attention, memory and executive functions. Thus negative effects of obesity on multiple cognitive skills may provide more understanding of obesity and obesity related diseases.

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## Obesity and ADHD

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In the last 30 years, obesity has been shown to be a worldwide epidemic problem. In studies focused on obesity and psychiatric disorders, it has been shown that mood disorders, anxiety disorders, exposure to stress, reward addiction behavior and eating disorders highly accompany each other. In studies with public-wide samples, the adult ADHD rate has been reported to be 3.4% and 4.4%.

Recent studies show that there is a significant relationship between obesity and ADHD. Nearly half of the children who are hospitalized because of obesity also have an ADHD diagnosis. In addition, ADHD diagnosis in children and adolescents is a critical risk factor for obesity and excessive weight gain during the transition period to adulthood. In the study of Altfas on individuals applying for obesity treatment, it is reported that 27.4% of 215 patients with grade III obesity have adult ADHD. It was found that

10% of 187 patients who applied for bariatric surgery have an adult ADHD diagnosis and these individuals show a high level of depression and anxiety symptoms.

There are genetic and phenotypic hypotheses of keeping the BMI at an ideal level from childhood till adulthood, and inattentive (IN) and hyperactive/impulsive (HI) components of ADHD. In one study, it was stated that three or more IN and HI symptoms have a significant effect on the development of obesity from childhood to adulthood. It was reported that IN and HI may be behaviorally effective in weight gain in adolescence and in continuity of weight gain in adulthood by respectively causing difficulty in maintaining attention (IN), and causing difficulty in inhibition of behavior (HI). IN causes deterioration in executive functions. As people with IN have a tendency toward high calorie food consumption, they consume fast food, and they stay a long time in front of the television and video games where weight gain is facilitated. HI causes nutrition problems related to deficient inhibitory control. HI causes over-consumption, adaptation problems in diet planning, impulsive excesses and high calorie food consumption without a feeling of hunger.

In neurobiological research related to obesity and ADHD, it was determined that there are similar consistent results related to dopamine and the reward system linked to dopamine. The most important hypothesis in explaining the relationship between obesity and ADHD is the hypo-dopaminergic hypothesis. As a result of low tonic dopamine oscillation in the prefrontal zone, there are behaviors related to "Reward Deficiency Syndrome". It is reported that in order to increase dopamine levels, obese individuals may present abnormal nutrition behavior related to a "self-medication" hypothesis. In some studies on eating addiction, it is stated that some highly palatable food may be addictive substances and over-consumption of these foods may be similar to addiction behavior. It is reported that substance addiction and abuse rate is highly accompanied by ADHD. A behavior similar to "addiction substance" towards food in people with ADHD may cause obesity.

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## Biomarkers related to energy-appetite system in psychiatry

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Psychiatric disorders are often associated with metabolic and hormonal alterations including appetite-energy and secretion of their corresponding endocrine regulators. The relations of metabolites connected with appetite and energy, e.g., cholecystokinin, neuropeptide y, somatostatin, to eating disorders and psychiatric diseases have been studied for a long time.

Remarkable changes in the molecules related with insulin resistance in schizophrenic patients are discovered as a result of the studies investigating the link between insulin and psychiatric diseases. Moreover, it has been emphasized that insulin resistance could be a mechanism that associates depression with diabetes.

Knowledge about the relationship between newly identified molecules associated with appetite and energy and psychiatric disorders is expanding rapidly.

Nesfatin-1 is a peripheral originated anorexigenic hormone of which plasma level is statistically higher in patients with major depressive disorder and associated with the elevated scores of anxiety and depression. Also it is related to the severity of panic attack level. Intracerebroventricular (ICV) injection of nesfatin-1 could induce anxiety- and fear-related behaviors. A recent study revealed that initial nesfatin 1 level in bipolar patients are statistically lower than in healthy control group before treatment.

Neuronostatin is a recently discovered peptide too. It is derived from the somatostatin preprohormone, significantly inhibited both food and water intake when administered centrally in adult male rats. There is no human study that investigated the relationship between neuronostatin and psychiatric disorders.

Like nesfatin, phoenixin is also a molecule that is believed to be related to appetite-energy metabolisms and psychiatric diseases because both it is sensitized in hypothalamus and exhibits a similar distribution in body with nesfatin. Nevertheless, to the best knowledge of the authors, there has not been a study which reveals such connection so far.

Resolvins are lipid mediators that are biosynthesized from  $\omega$ -3 polyunsaturated fatty acids and decreasing in Resolvin D1 decreases post-MI depression-like symptoms as well as MI size.

Leptin plays an important role in providing information about accumulated energy stores and thus playing a role in long-term regulation of the amount of food ingested. There have been many reports of altered levels of leptin in schizophrenic patients; some studies reported decreased serum leptin levels in schizophrenic patients, but others have found increased serum leptin levels in antipsychotic-naïve female patients with schizophrenia. Leptin resistance accompanying obesity is supposed to influence disorders such as anxiety, depression and

may affect neurocognitive functions.

Ghrelin as the only known orexigenic hormone secreted in the periphery, it increases hunger and appetite, promoting food intake. A recent study showed increasing in ghrelin levels were increased in the MD (before treatment) patients compared with the healthy control and MD-PT (post-treatment) patients. Ghrelin has also shown to play an important role in depression treatment. Ghrelin might be involved in BD pathogenesis and might represent useful biomarkers for the development of preventive and personalized therapies in this disorder. Resistin is a newly identified hormone, secreted specifically by adipocytes. High serum resistin levels, presence of protein energy wasting might have a role in development of depressive disorders of patients with chronic kidney disease.

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## Dealing with treatment resistant anxiety disorder cases

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Anxiety disorders (AD) are one of the most common psychiatric disorders which may cause problems in psychological and social functioning of children and adolescents. Studies report that lifetime prevalence of AD in adolescents is 32%. If left untreated, these children and adolescents have high risk to experience various psychiatric and social conditions including AD, depression, substance use, problems in academic functioning and peer relationships. Appropriate treatment of AD may protect these individuals from developing other kinds of disorders and psychosocial problems. Treatment of AD in children and adolescents include psychopharmacological and psychotherapeutic interventions. While guidelines suggest cognitive and behavioral interventions in mild cases, additional medical interventions are suggested in more severe cases. Like individual interventions, group based CBT programs are effective in the treatment. Antidepressant drugs like selective serotonin reuptake inhibitors, serotonin-norepinephrine reuptake inhibitors and tricyclic antidepressants can be used in the medical treatment of AD. Likewise, benzodiazepines and antihistaminic drug are used in the short term treatment. However, studies report that despite appropriate interventions, an important proportion of the children and adolescent with AD do not respond to the treatment. In this session, causes of the resistance to the treatment and suggested strategies in these cases will be discussed.

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## MicroRNAs in neurodegenerative disorders

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MicroRNAs (miRNAs) are endogenous, small, noncoding RNA molecules that negatively regulate gene expression via degradation or translational repression of their target messenger RNAs. Recent studies have clearly demonstrated that miRNAs play critical roles in several biologic processes, including cell cycle, differentiation, cell development, cell growth, and apoptosis and that miRNAs are highly expressed in regulatory T cells and a wide range of miRNAs are involved in the regulation of immunity and in the prevention of autoimmunity. It has been increasingly reported that miRNAs are associated with various diseases especially autoimmune diseases, cancer, neurological and psychiatric diseases in humans. In addition, miRNAs are moving rapidly onto center stage as key regulators of neuronal development and function, in addition to important contributions to neurodegenerative disorders. As the expression of disease-causing genes is regulated by certain miRNAs, changes in these miRNAs could lead to the accumulation of disease-causing proteins, and subsequently to neuronal dysfunction and death. Moreover, there is now compelling evidence that dysregulation of miRNA networks is implicated in the development and onset of neurodegenerative diseases.

Neurodegenerative disorders are characterized by progressive loss of specific neuronal groups in the central nervous system (CNS), resulting in significant motor and cognitive disability, such as Alzheimer's disease (AD), Parkinson's disease (PD), Huntington's disease (HD), Frontotemporal dementia (FTD) and Prion diseases. Currently, diagnosis of AD, PD and different forms of dementia is based primarily on analysis of the patient's cognitive function. It is therefore important to find non-invasive diagnostic methods useful to detect neurodegenerative diseases during early,

preferably asymptomatic stages, when a pharmacological intervention is still possible. Several blood, plasma, serum or cerebrospinal fluid, brain tissue-derived extracellular fluid biomarkers born for neurodegenerative diseases have been proposed to meet these criteria. Further studies demonstrated that miRNAs in these biofluids may possess neurodegenerative disease biomarker potential for screening tests, differential diagnosis and disease progression monitoring. Detailed understanding of these mechanisms can provide potential new disease modifying therapeutic approaches to slow down or halt the progression of neurodegenerative diseases. Also miRNAs are associated with amyotrophic lateral sclerosis (ALS), vascular ischemic events, tumors and autoimmune CNS diseases such as Multiple Sclerosis (MS).

In this presentation, I briefly summarize the current studies about the roles of circulating miRNAs in neurodegenerative disorders and may be the potential biomarkers in the pre- and clinical diagnosis of neurodegenerative diseases. This provides basically a new perspective of the applicability of miRNAs for future therapeutic intervention strategies.

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## Management hyperprolactinemia

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There is limited evidence for the management hyperprolactinemia resulting from use of antipsychotics in patients with schizophrenia and spectrum.

The aim of this presentation is to describe the strategies for the treatment of antipsychotic-induced hyperprolactinemia.

Hyperprolactinemia is potentially important consequence of antipsychotic medication treatment. Some individuals presenting with hyperprolactinemia remain asymptomatic, but others may exhibit a wide range of clinical symptoms resulting from either the direct effects of prolactin on body tissues (galactorrhea, gynecomastia) or endocrine-related secondary effects (sexual and reproductive dysfunction „impotence and azoospermia in the short term, and possibly the risk of tumorigenesis and osteoporosis in the longer term). Short-term side effects may negatively impact medication compliance, and long-term effects have the potential for serious health consequences.

When hyper-prolactinemia is diagnosed, work-up should include exclusion of other causes of hyperprolactinemia, particularly those that might require treatment. Once such causes have been ruled out, a minority of patients with antipsychotic medication-induced hyperprolactinemia, including those with clinically significant signs and symptoms will require treatment. When treatment is indicated, specifically when hyperprolactinemia results in amenorrhea in women or testosterone deficiency in men, dopamine agonist therapy is generally not advisable. Hormone-replacement therapy, which involves estrogen/progestogen in women and testosterone in men, can often prevent modification and interruption of successful psychiatric medication regimens.

Switching from prolactin-elevating to prolactin-sparing agents is recommended. Providing adjunctive treatment and prescribing substitutive hormones are alternatives.

If adjustments to the antipsychotic dosage fail to resolve symptoms, the dopamine agonists bromocriptine and amantadine may be tried. Bromocriptine or amantadine may provide symptomatic relief if withdrawal or adjustment of the antipsychotic dosage does not eliminate the symptoms.

Taking patients' history and conducting physical examinations should be done during follow-up. Education and lifestyle modification should be a major health promotion strategy.

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## What can we expect from studies on trauma and dissociation regarding the bipolar disorder?

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Studies on comorbidity are one of the avenues leading to potential discoveries in psychiatry. Rather than mere coexistence, interactions between psychopathologies (in terms of facilitation, resistance, and resilience) as well as possible common mechanisms seem to constitute

main targets of such research. Both genetic/neuroscientific/medical as well as stress studies may benefit from this perspective. Trauma- and stress-related disorders such as PTSD and dissociative disorders constitute model psychopathologies to be implemented in research on bipolar disorder. One such study conducted patients with bipolar disorder led to insights about the impact of PTSD and childhood abuse and/or neglect to the outcome of the disorder (Çakır et al, 2016). While PTSD predicted less favorable response to treatment with lithium carbonate, childhood trauma was associated with less favorable response to valproate treatment. Childhood stress was also associated with the frequency and severity of the episodes as well as suicidality and use of antidepressant. These observations have implications for the design of the treatment in bipolar disorder as well as basic neurobiological research on the mechanisms of the disorder.

**Reference:**

1. Çakır S, Tasdelen-Durak R, Ozyildirim I, Ince E., Sar V (2016). Childhood trauma and treatment outcome in bipolar disorder. *Journal of Trauma and Dissociation* (in press).

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## What are resistant and ultra-resistant schizophrenia and how are they treated?

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Despite recent advanced in the pharmacological treatment of schizophrenia; there remain a significant proportion of patients who do not respond well to pharmacological intervention. Most treatment guidelines require the failure of at least two antipsychotic trials with different compounds, including at least one second-generation antipsychotic, in adequate dose over a period between two and eight weeks before treatment resistance can be assumed. Typical goals of care focus on the amelioration of positive symptoms. However, what is often overlooked is the fact that cognitive deficits and negative symptoms, which are the real reasons for functional disability in schizophrenia, have no treatment and persist even after the psychotic symptoms are controlled. Thus, all patients with schizophrenia are technically treatment refractory, even those whose psychotic symptoms improve substantially.

After two insufficient monotherapeutic treatment attempts with SGAs, clozapine may be installed which is the agent of choice in treatment refractory schizophrenia. Even under such conditions, however, up to 40% of patients experience only partial remission and even more do not reach a level of full functional recovery. This fact has to stimulate both an improved understanding of treatment refractory schizophrenia and the development of innovative substances. In clinical practice, insufficient response to clozapine monotherapy is followed by different modes of polypharmacy comprising the combination of equal-class substances (e.g., antipsychotics) and the augmentation with substances of different classes (e.g., ECT, rTMS, antipsychotics, mood stabilizers, glutamate-modelling agents, nonsteroidal anti-inflammatory drugs and hormonal treatment).

Clozapine remains the drug of choice for resistant schizophrenia. Biological augmentation strategies to clozapine therapy have yet to be substantiated by convincing evidence.

**References:**

1. Kane JM, Correll CU. The role of clozapine in treatment-resistant schizophrenia. *JAMA Psychiatr* 2016.
2. Şagud M. Treatment-resistant schizophrenia: challenges and implications for clinical practice. *Psychiatr Danub* 2015;27(3):319-26.
3. Lally J, MacCabe JH. Antipsychotic medication in schizophrenia: a review. *Br Med Bull* 2015;114(1):169-79.

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## Anxiety disorders due to organic etiology and psychopharmacological approaches

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It is possible to confront with many psychiatric manifestations in the presence of organic diseases. Even though psychotic symptoms and mood symptoms are more frequent, the symptoms of anxiety are also likely to emerge. This presentation will make mention of a couple

of cases involving certain symptoms and indications of anxiety accompanying different organic diseases as well as approaches toward these cases.

**Case 1:** A 37-year-old male and married patient who is working as an engine officer in a ship. His latest commuting was recorded five months ago. He reportedly fell from high stayed in hospital with the diagnosis of cerebrovascular disease. He has memory impairment. He reportedly intended to kill the whole family by gas poisoning but he did not. Even though he subsequently started to work up better connections, he was observed to have psychotic symptoms. Treatment plan included olanzapine 15 mg/day and valproate 1000 mg/day. The patient was diagnosed with mood disorder due to general medical condition.

**Case 2:** A 72-year-old male patient, married and retired with HT and DM. One month ago, he was taken into arrest procedures due to CVO and he was applied CPR. He had severe anxiety and escitalopram 10 mg/day was initiated. He was full of restiveness, monophobia and he was describing some kind of uneasiness. He was continuously drawing sigh and he despaired of getting better. Escitalopram dose was increased to 20 mg/day. 15 days later, lorazepam 1 mg/day was added as his anxiety escalated too much and he had insomnia. He was diagnosed with vascular dementia on the basis of neurological follow-up and cranial MR. It was attention-grabbing that his cognitive functions started to get deteriorated quite quickly. The treatment was carried on with sertraline 50 mg/day; but this revision made no changes in terms of anxiety. He was insensitive to his immediate surroundings; but he did not want to stay alone in the room. Almost 20 months after such resuscitation and resulting clinical manifestation as described above, the patient passed away.

**Case 3:** A 35-year-old man prisoner. He went a brain surgery approximately five years ago, after then his complaints came to light. He experienced epileptic seizures, and thus carbamazepine 400 mg/day was started. His examination revealed that he was full of anxiety with strong desire to cry and feeling of getting bored; and he occasionally had suicide ideation. Sertraline 50 mg/day was started and then it was increased to 100 mg/day. Once he had one more seizure, carbamazepine was increased to 800 mg/day and olanzapine 5 mg/day was started.

The symptoms of anxiety are widely seen in organic patients, either on the onset or in company with some other psychiatric conditions. Clinical manifestations that involve organicity going about solely with the diagnosis of anxiety have not been dealt commonly in the literature. It should not be ruled out that the anxiety may come into existence simultaneously with a wide variety of diseases, and that it may have some underlying organic reasons. In this respect, a quickly workable etiological plan and appropriate treatment program should be put into practice.

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## Follow-up of long-term treatment in a child diagnosed with comorbid selective mutism and attention deficit hyperactivity disorder

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This presentation will discuss about the problems that were encountered during the course of treatment in a 6-year-old girl starting treatment with diagnosis of Selective Mutism (SM) and its effects of comorbid Attention deficit hyperactivity disorder (ADHD) on the course of treatment.

Being one of rarely encountered psychiatric disorders of childhood; Selective Mutism could be defined as a child's refusal to speak in certain social environments despite having no problem with the skill of speaking. SM could be accompanied by a number of psychiatric disorders and in literature comorbidity of depression, panic disorder, dissociative disorders, obsessive-compulsive disorders and Asperger disorder is frequently specified. In the treatment of SM; psychodynamic therapy, behavioral therapy and family therapy are considered effective and psychopharmacologic treatment also constitutes an important part of the holistic treatment.

Attention deficit hyperactivity disorder is among the most frequent neuro-psychiatric disorders of childhood. Attention duration and hyperactivity/impulsivity that are not convenient for the age and development of a child is observed. ADHD could also be accompanied by a number of psychiatric disorders like anxiety disorders and disruptive behavior disorders. In literature, there is no publication concerning the comorbidity of ADHD and SM.

The treatment of the case started with behavioral therapy, but then administered fluoxetine due to the resistant nature of disease, but in fluoxetine therapy some behavioral problems occurred. When the case whose activity considerably increased after the fluoxetine treatment had a distinctly increased impulsivity despite the intensive supervision of her family, the dose of fluoxetine was decreased; however, as the case continued to have the complaints of having a difficulty in focusing her attention and a hyperactivity and impulsivity; atomoxetine was added to the treatment. Even though the drug doses were kept very low throughout the treatment; the case had side

effects like nausea, loss of appetite, weight loss, vomiting and sleeplessness. When mutism regressed, fluoxetine treatment was stopped; however, as the symptoms of mutism returned within a few months, fluoxetine treatment was started again and the symptoms decreased. The case was regularly administered omega 3 for both balancing the side effects and providing an additional effect on attention. She had decreases and increases in academic success from time to time. As well as drug therapy and regular psychotherapy interviews; the case was directed to sports and she started ballet and gymnastics trainings. Additionally, she received private lessons to support her in terms of academic success.

The case has been followed for almost 5 years and is currently receiving treatment of fluoxetine 5 mg/day and atomoxetine 10 mg/day, which provides her a full control in terms of the symptoms of both ADHD and SM.

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## Social anxiety disorder and oxytocin

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Oxytocin (OXT) is synthesized in to the brain from the pituitary gland. It stimulates neurons expressing oxytocin receptors and controls multiple physiologic functions. In humans, the suckling of a newborn enhances OXT secrete in the mother's brain, subsequently decreasing plasma levels of the stress hormones adrenocorticotrophic hormone (ACTH) and cortisol. Hence, it is naturalistic to test the stress-dampening outcome of OXT in breastfeeding women. Interestingly, breastfeeding before stress exposure decreases ACTH and cortisol responses to psychosocial or physical stress in postpartum lactating women, compared with non-lactating women. OXT plays a role in the modification of stress response and stress-related behaviors. The neuropeptide OXT has been showed as an anxiolytic and anti-stress factor of the brain, in addition, its many prosocial and reproductive effects. Hence, there is substantial scientific and medical interest in its potential therapeutic use in the treatment of psychopathologies connected with anxiety, fear, and social problems, such as generalized anxiety disorder, posttraumatic stress disorder, and social anxiety disorder, as well as autism and schizophrenia, among others. OXT critical portray in anxiety and social interaction. The available evidence from animal and human studies confirm the hypothesis of an imbalance of the endogenous brain OXT system in the cause of anxiety disorders, especially those with a social component such as social anxiety disorder. Moreover, such an imbalance of the OXT system is also prone to be the consequence of chronic OXT treatment resulting in a dose-dependent reduction in OXT receptor availability and enhanced anxiety.

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## The role of the microbiota-gut-brain axis in brain disorders

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The brain and the gut are involved in continuous communication. This bidirectional interaction becomes apparent when the information about to the alterations in gastrointestinal function is transmitted to the brain, inducing the perception of visceral events such as nausea or pain. In turn, stressful experiences lead to a change in gastrointestinal secretions and motility. This communication system involves neural, immune, and endocrine mechanisms. The gastrointestinal tract is the site of interaction between microorganisms, the body's largest concentration of immune cells, and a vast network of over 100 million neurons.

Evidence from human and animal studies shows that stress can affect the gut microbiota Lactobacillus and Bifidobacterium seem especially susceptible to signals from the CNS. Reduced levels of lactobacilli have been associated with the display of stress-indicative behaviors in animals. Studies with primates have determined that maternal stress during pregnancy can result in a reduction of both lactobacilli and bifidobacteria in offspring.

These alterations in the gastrointestinal microbiota may be a consequence of changes in gut motility or gastrointestinal acidity and/or the direct effects of neurochemicals such as norepinephrine. For example, in *Escherichia coli*, the QseC sensor kinase is a bacterial receptor for

the host epinephrine/ norepinephrine. Bacteria respond to the host's neuroendocrine changes, on the other side they can influence the neuroendocrine environment by the production of various biologically active peptides and neurotransmitters such as nitric oxide (NO), melatonin, gamma-aminobutyric acid, and serotonin. For example, lactobacilli converted nitrate to NO, which is a potent modulator in the CNS.

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## From perspective the risk / benefit ratio: Turkey's 'e-pulse' application and health data security

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An electronic health record permits health-care providers to record patient information electronically instead of using paper records. It also can perform various tasks that can assist in health-care delivery.

There are some major benefits of using electronic health records. Principal benefit among them is the speed to enter and access patient data.

Privacy is a primary concern when it comes to electronic health records. Using electronic medical records can potentially put your organization at risk if you do not follow privacy protocols to an exacting degree. While paper records also make it easy to violate a patient's privacy, the convenience and immediacy of electronic records make it easier to violate privacy at an unprecedented level.

In 2015, E-Pulse (E-Nabiz) Project of Ministry of Health came to life and personal health record period began in Turkey. e-pulse project aims to provide improved health services (by reducing the length of diagnosis and treatment); prevent the repetition of unnecessary examinations; and reduce government expenditure. The e-pulse project allows people to place their digital health data online. Under the project, people are allowed to manage their own data. Further, they will have the right to request amendments to or the deletion of the data or for it to be deleted. Confidentiality is an important component of the project and the ministry has stated that data will be encrypted and people will be able to access their data only by entering their e-government password. Pros and cons of the e-pulse application will be discussed.

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## Use of neuromodulation in bipolar depression

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The vast majority of rTMS research has focused on the treatment of unipolar major depressive disorder. However, there is an evidence for the use of rTMS in the treatment of patients with bipolar depression. The use of concurrent mood stabilizer medication should be carefully considered in patients with a history of substantial manic episodes and all patients monitored for the emergence of manic symptoms during treatment. The use of rTMS to treat mania is an area that requires further research before certain conclusions can be drawn on its clinical utility.

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## Course: Transcranial magnetic stimulation in clinical practice

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Compared to other brain stimulation methods, although transcranial magnetic stimulation (TMS), a noninvasive technique, considered being a relatively safe treatment, it still carries the risk of unwanted side effects. In TMS practice, long-term risks beyond the short-term risks that develop during the follow-up period of several weeks are also growing importance. rTMS is generally very well tolerated. The most commonly reported side effects of rTMS treatment are the occurrence of discomfort or pain during stimulation and the development of a headache during or after treatment. Inductions of psychiatric symptoms, muscle tension or seizure are also possible. In this course, safety and side effects of treatment literature data will be discussed in the light of the current literature.

At the beginning of a treatment course with transcranial magnetic stimulation (TMS) a variety of parameters for treatment, such as intensity of stimulation, frequency of stimulation, duration of each stimulation train, total number of stimulation trains provided in each treatment session, inter-train interval, site of stimulation must be determined. The choice of these parameters should be made on an individual patient basis but may be determined by established protocols. Several parameters of TMS as a treatment choice for depression will be discussed in this review. Also several factors related to the clinical status of the patient are important while determining the TMS parameters. We will briefly discuss these factors, such as stage of disorder, resistance to treatment, qualities of the previous biological treatments, age of the patient, comorbid neurological diseases, tolerance to pain, and ongoing medications.

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## Course: Therapeutic ketamine administration in treatment-resistant depression

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There is growing evidence demonstrating rapid effectiveness onset of action (within hours) of intravenous administration of ketamine in depression, treatment-resistant depression and bipolar depression. Published review in Science (2012) by Duman & Aghajanian calls this "perhaps the most important discovery in half a century."

Although the "precise" mechanism of action of ketamine in depression remain unclear but there is evidence indicating for the possible involvement of the "NMDA-Nitric Oxide-cGMP" plus messenger systems such as mTOR pathway modulation in mechanisms of action and rapid-onset effective therapeutic intervention.

This course will focus on preclinical and clinical mechanisms and therapeutic developments regarding this novel intervention.

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## Recently FDA-approved medications: What lurasidone and carizapine brought?

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Bipolar disorder I (BD) has chronic and recurrent course and major depressive episodes (MDE) predominate the course of the BD. MDE are linked with impairment in social and occupational functioning, increased direct and indirect healthcare costs and increased risk of suicide. Despite these undesirable effects of MDE on BD, fewer treatment options are available. Mood stabilizers such as; lamotrigine, lithium, and valproate second-generation antipsychotics (SGA) such as; olanzapine and quetiapine are recommended for the treatment of bipolar I

depression (BPD).

Lurasidone is a novel atypical antipsychotic and has been approved by the U.S. Food and Drug Administration for the treatment of bipolar I depression. Lurasidone has high affinity for D2, 5-HT<sub>2A</sub>, 5-HT<sub>7</sub> (antagonist), moderate affinity for 5-HT<sub>1A</sub> receptors (partial agonist) and no affinity for H<sub>1</sub>, M<sub>1</sub> receptors. Antagonistic activity of 5-HT<sub>7</sub> receptors has been related to antidepressant effects in animal models of depression.

In previous studies both lurasidone monotherapy and adjunctive therapy with lithium or valproate were demonstrated to be reduced the depressive symptoms in BPD (between the 20-120 mg/day dose range). In these studies lurasidone was generally well tolerated and common side effects were nausea, somnolence, tremor, akathisia and insomnia. During the treatment minimal alterations in weight lipids and measures of glycemic control were observed.

Cariprazine is a recently developed antipsychotic and it demonstrates a partial agonism at D<sub>2</sub>, D<sub>3</sub> and 5-HT<sub>1A</sub> (agonistic effects) receptors and exerts tenfold greater affinity to D<sub>3</sub> than D<sub>2</sub>. The D<sub>3</sub> receptor is associated with the modulation of mood. Cariprazine does not block serotonergic receptors and exerts partial agonism at dopaminergic receptors. The most common side effects were akathisia and insomnia and weight gain was slightly higher with cariprazine than with placebo. According to these findings cariprazine is promising for the future treatment of BPD.

In conclusion, lurasidone and cariprazine seem to be effective and well tolerated with minimal side effects in patients with BPD. Both of these agents may be considered in the treatment of BPD patients.

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## Time perception and management in ADHD

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There are a number of studies about the relation between time perception and ADHD. According to data obtained from these studies time perception deficit may play critical a role in etiopathogenesis of ADHD. But not only ADHD many other psychiatric disorders found associated with time perception and management. In this panel we will look time perception and ADHD connection from a different angle and will try to answer questions like; is there a relation between ADHD and bipolar disorder via neural substructures of biological clock, is glycogen synthase kinase 3 the critical link between disorders that exhibits impulsivity?

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## Case formulation of trichotillomania and cognitive behavioral therapy techniques

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Trichotillomania (TTM), also called hair-pulling disorder, is an obsessive-compulsive related disorder (OCD) associated with significant distress and impairment that is estimated to affect 1% to 2% of adolescents and young adults (Diagnostic and Statistical Manual of Mental Disorders-5<sup>th</sup> ed. [DSM-5]; American Psychiatric Association, 2013). McGuire and colleagues (2014) conducted a meta-analysis of randomized controlled trials for TTM, which showed that behavior therapy had a large effect on TTM severity (pooled standardized mean difference=1.41), whereas has SSRIS had smaller effects (pooled effect size=0.41). Habit reversal training (HRT) is the intervention for TTM that has the most empirical support (Bloch et al., 2007). It is a type of behavioral therapy that has four key elements:

1. Self-monitoring, in which the client logs instances of their hair pulling
2. Awareness training, enabling the client to become more aware of their triggers for pulling
3. Stimulus control, which involves making hair pulling more difficult by limiting opportunities to pull
4. Competing responses training, implementing techniques, which make hair pulling physically impossible.

Besides HRT, other cognitive- behavioral techniques like relaxation training and cognitive restructuring can increase treatment response

rates. Also, if needed emotion regulation skills with traditional HRT could be added for the individuals with TTM with affective regulation difficulties.

I want to share one of my adolescent clients suffering from TTM for one year, as a case formulation of cognitive behavioral therapy and explain cognitive behavioral techniques specifically used for this client.

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## Is ADHD risk for addiction?

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Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder with specific characteristics, including attention deficit, hyperactivity and impulsivity. ADHD has been associated with lower levels of academic achievement, impaired peer relationships, social relationship difficulties and conduct problems in children and adolescents. Additionally, the comorbidity of ADHD with oppositional defiant disorder, conduct disorder, anxiety disorder and elimination disorders has frequently been reported. Furthermore, there is a close relationship between substance-use disorders and ADHD. While the mechanisms of this relationship are not clear, similar underlying biological and psychological factors may be shared by ADHD and addiction. Although these mechanisms are not clear, recent studies on ADHD report dysfunctional reward processing, with hypo-responsiveness during reward anticipation in the reward system, including the dopaminergic thalamo-cortico-striatal reward circuit. Therefore, it has been speculated that the same brain areas might play a crucial role for both attention problems and addictive behaviors. Neuropsychological tests have confirmed the relationship. This relationship should be taken into consideration in the treatment and prevention. There are studies that effective treatment of ADHD in high risk patients. In this panel novel development in the relationship between ADHD and addiction will be discussed in detail.

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## Psychotherapy approaches in child and adolescent substance use disorders

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Psychotherapy is a form of psychiatric treatment that involves therapeutic conversations and interactions between a therapist and a child or family. It can help children and families understand and resolve problems, modify behavior, and make positive changes in their lives. There are several types of psychotherapy that involve different approaches, techniques and interventions. At times, a combination of different psychotherapy approaches may be helpful. In some cases a combination of medication with psychotherapy may be more effective. Research has shown that treatments designed for and tested in adult populations often need to be modified to be effective in adolescents. Family involvement is a particularly important component for interventions targeting youth. A therapist's material bag must be equipped and can use this equipment when needed.

Cognitive Behavior Therapy (CBT) helps improve a child's cognitive distortions and behavior pattern. During CBT, an adolescent learns to identify harmful thought patterns. CBT can be effective in treating depression, anxiety and PTSD which are cause to addiction.

Family Therapy focuses on helping the family function in more positive and constructive ways by exploring patterns of communication and providing support and education. Family therapy sessions can include the child or adolescent along with parents, siblings, and grandparents.

Group Therapy is a form of psychotherapy where there are multiple patients led by one or more therapists. It uses the power of group dynamics and peer interactions to increase understanding of mental illness and/or improve social skills. We can remember that twelve-step program in this context.

Play Therapy involves the use of toys, blocks, dolls, puppets, drawings and games to help the child recognize, identify, and verbalize feelings. The psychotherapist observes how the child uses play materials and identifies themes or patterns to understand the child's problems. Through a combination of talk and play the child has an opportunity to better understand and manage their conflicts, feelings, and behavior.

Psychodynamic Psychotherapy emphasizes understanding the issues that motivate and influence a child's behavior, thoughts, and feelings. It can help identify a child's typical behavior patterns, defenses, and responses to inner conflicts and struggles.

Interpersonal Therapy (IPT) is a brief treatment specifically developed and tested for depression, but also used to treat a variety of other clinical conditions.

Dialectical Behavior Therapy (DBT) can be used to treat older adolescents who have chronic suicidal feelings/thoughts, engage in intentionally self-harmful behaviors or have Borderline Personality Disorder.

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## Management of sleep disorders in children and the effects of psychopharmacological treatments on sleep physiology

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Sleep problems, commonly reported in children and adolescents, not only predispose to mood, cognitive, and behavioral impairments, but also have a significant impact on physical health. Fortunately, the great majorities of these problems are mild to moderate in intensity and commonly related with wrong household sleeping routines and parental attitudes. Bedtime resistance and sleep anxiety are common especially in young children. Although different terminologies exist, classification of sleep problems as primary and secondary (e.g. medical or psychiatric disorder) is helpful for the evaluation and effective management. Primary sleep disorders are rare in children except of sleep-disordered breathing and parasomnias. Psychiatric disorders frequently present with sleeping difficulties and sleep disorders may be mistaken for primary psychiatric conditions. There seems to be bilateral relationship between sleep problems and psychiatric symptoms, especially hyperactivity, impulsivity, irritability and aggression. Children with ADHD frequently have chronic difficulties at initiating and sustaining sleep, which may be among the intrinsic features of the disorder. The management of sleep problems is multidimensional and includes the regulation of sleep habits, parental attitudes and sleep hygiene. In the treatment of severe sleep problems and sleeping difficulties secondary to psychiatric disorders, use of medications may be warranted. In primary psychiatric disorders, sleeping difficulties commonly resolve with the treatment of the underlying condition. Therefore, sleep medications must be used for short durations. When a primary sleep disorder is diagnosed a long-term medication treatment is usually needed. Psychopharmacological treatments, including SSRIs, antipsychotics and stimulants may have effects on the sleep architecture. Clinicians should weigh the treatment effects and possible adverse effects of these medications when considering in sleep disorders.

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## The role and importance of MiRNA molecules in schizophrenia and bipolar disorder

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Schizophrenia and bipolar disorder affect 1% of the population. Both disorders are major public health problem and reduce quality of life. MicroRNAs are about 22 nucleotide length RNA molecules. MicroRNAs are frequently down-regulate gene expression. While some of microRNAs are tissue specific, but majority of them are found in general circulation. In neural tissues, microRNAs are playing a role in developmental stages and neuroplasticity processes such as neurogenesis, apoptosis, differentiation, long-term potentiation. The dysregulation of miRNAs affect neural development and functioning. The etiology of schizophrenia and bipolar disorder has not been fully elucidated. Both disorders are highly heritable neuropsychiatric disorders. Genetic and environmental factors contribute the emergence of these chronic psychiatric disorders. MicroRNAs regulate cell maturation, synaptic plasticity, neural migration and neural networks via altering gene expression. Therefore changes in gene expression by modifying the microRNAs contribute to the development of psychiatric disorders. For example, miR-124 and miR-9 regulate the number of astrocytes. MiR-134 organizes the dimension of dendritic

spines of hippocampal neurons in rats. Dysregulation of miRNAs disrupt the normal functioning of the central nervous system and play a critical role in the pathophysiology of schizophrenia and bipolar disorder. In future, miRNAs can be biomarker for schizophrenia and bipolar disorder and it can be useful for early diagnosis, treatment response and prognosis of disease because of easily extracted form serum, plasma, saliva and urine.

**Keywords:** schizophrenia, bipolar, miRNA

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## Speech and language disorders in autism spectrum disorders

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Autism spectrum disorders (ASD), are neurodevelopmental disorders that have an abnormal development or delay in social, communicative and cognitive domains. Evaluation of language in autism is very important for both diagnosis and prognosis. Speech and language level is one of the most important factors affecting the functionality with the intelligence level in ASD. The problems in language ranging from the lack of speech to pedantic talk are important features. Approximately half of children diagnosed with ASD language are not functional and there is a continuous communicative delay. Other children with ASD having language development like healthy children, even though there are deficiencies in the use of language in social situations (1).

Evaluation of language and speech in Autistic Spectrum Disorder is important for determining the severity and for education planning of the disorder. Speech and language therapists, should be evaluated receptive language, expressive language, including sound and word production and the frequency and function of verbal (vocalizations/verbalizations) and nonverbal (e.g., gestures) communication, literacy skills, social communication (use of gaze, joint attention, initiation of communication, social reciprocity and the range of communicative functions, sharing affect, play behaviors, use of gestures), conversational skills, including topic management (initiating, maintaining, and terminating relevant, shared topics), turn-taking, providing appropriate amounts of information in conversational contexts, speech prosody in children with ASD (2).

The language development in autistic children's education is important. The development of language in children with autism also reduces negative behavior relatively. A condition known as positive behavioral support reduce adverse/ abnormal behaviors in autistic children and can cause to be acting like a normal child. Autistic child's language development would also reduce behavioral problems caused by the child's communication problems (3).

The number of Speech and Language therapist increases than the diagnosis and education will be able to reach international standards in autism spectrum disorders.

### References:

1. Fernanda Dreux M.Fernandes, Cibelle A.H. Amato and Daniela R.Molini-Avejonas (2011). Language Assessment in Autism, A Comprehensive Book on Autism Spectrum Disorders, Dr. Mohammad-Reza Mohammadi (Ed.), ISBN: 978-953-307-494-8.
2. <http://www.asha.org/PRPSpecificTopic.aspx?folderid=8589935303&section=Assessment>
3. Korkmaz B. Otizm Farkli gelisen cocuklar Epsilon yayincilik,1. Baski,s.81-115, Istanbul, 2003

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## Treatment of substance abuse disorders in posttraumatic stress disorder

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The incidence of life-threatening events is increasing recently. 50% of women and 60% of men were found to have a traumatic experience. Studies report the rate of the incidence of Post-Traumatic Stress Disorder (PTSD) developing due to traumatic life events between 8% to 20%. Additionally, the rate of comorbid psychiatric disorders is approximately 80%. Frequently, substance use disorder is seen in

PTSD for both genders. In the community, the prevalence of alcohol or substance use disorder in individuals with PTSD is 2-3 times higher relative to those without PTSD. This coexistence of PTSD and substance use disorders leads to difficulties in the treatment many times. Four hypotheses have been proposed to explain this coexistence. The first hypothesis defends that substance abuse develops before PTSD. Second one (Self-medication) suggests that PTSD emerges before substance abuse disorder. According to this hypothesis, substance abuse actually is a kind of self-help method used to resolve complaints related PTSD. The thought that substance abuse causes predisposition for the development of PTSD in the individuals experiencing trauma is third hypothesis. The fourth one defends that PTSD and substance use disorders share common biological, genetic and environmental predispositions. Consistent with self-medication hypothesis, the use of alcohol and other substances is known to work at first to cope with hyperarousal and re-experiencing symptoms in PTSD patients. However, secondary psychiatric problems arise related to the use of higher doses of the substances due to the continuation of resistant PTSD symptoms. At this point, which treatment of the disease will be the priority is a difficult question to answer for the clinicians. Making early and effective PTSD treatment is important in the treatment of subsequently developing substance abuse disorders. Also, studies indicate that patients with only substance use disorders have lower recurrence rates than PTSD comorbid substance use disorders. Accompanying of substance use disorders to PTSD increases self-injurious and violent behaviors and complicates treatment. In general practice, treatment for substance abuse disorders is initiated prior to the treatment of PTSD. But, mostly coordination is not achieved due to the implementation of the two treatment programs by different departments. Therefore, psychotherapeutic and psychopharmacological treatments are being developed for concurrent treatment of both diseases today.

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## Facial recognition in delusional misidentification syndroms

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Delusional misidentification syndromes include a group of delusional disorders involving a belief that the person(s)/ object(s)/ or place(s) around the patient have changed or have been changed. Those disorders can develop on the basis of mental or neurological disorders. The human face conveys information regarding a person's identity, emotional state, gender, age and direction of attention. The face is one of the most complex visual stimuli. It has an intricate three-dimensional geometry, with distinct features and subtle variations in color, luminance, and texture. Furthermore, the face has short and long term dynamic properties. Over seconds and minutes, the shape of the face alters with emotional state and functions such as eating, talking, and looking. Over years, the face changes with age and alterations in body habitus. Despite all these static and dynamic intricacies, most humans recognize faces and deduce information, such as expression and age. Impaired recognition of facial identity is the hallmark of prosopagnosia. there are continuing controversies over the existence and role of face processing deficits in a number of other syndromes. Patients with Capgras delusion recognize individuals but insist that the person before them is actually a stranger masquerading as that person. Though this is often discussed in a psychiatric context, there are numerous examples of Capgras delusion consequent to neurologic lesions, and impaired face recognition is hypothesized to play a causal role in at least some cases. Another disorder is false recognition of faces, in which patients claim that unfamiliar faces are known to them; this can occur with associated prosopagnosia or as an independent entity. Last, there are some intriguing data and hypotheses about the status and role of face perception in the pathophysiology of social developmental disorders such as autism and Asperger's syndrome, and even in schizophrenia.

The Capgras phenomenon is one of several rare delusional misidentification syndromes. Patients believe that familiar people have been replaced by impostors. It has been suggested that Capgras Syndrome (CS) could result from a disconnection between ventral visual structures and limbic structures dedicated to affective processing. Several current theoretical models of CS attribute such misidentification problems to deficits in covert recognition processes related to the generation of appropriate affective autonomic signals. These models assume intact overt recognition processes for the imposter and, more broadly, for other individuals. As such, it has been suggested that CS could reflect the "mirror-image" of prosopagnosia.

Other person-related misidentification syndromes include the Fregoli delusion, in which the patient insists that an unfamiliar person is someone he knows, and the intermetamorphosis syndrome, in which the patient believes that familiar people have exchanged identities.

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## Unplanned / undesired pregnancy in psychiatric disorders

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Unplanned pregnancies are pregnancies that occur when person doesn't know that she is physically and spiritually ready for pregnancy. Individuals may adapt to unplanned pregnancies or during this period, their pregnancies become an undesired pregnancy which brings the term of undesired pregnancies that also considered. So, all of the unplanned pregnancies aren't an undesired pregnancy, but mostly it is.

Unplanned pregnancies, even in the people who have not gotten any psychiatric disorders, bring a lot of risks, especially causing an undesired pregnancy that leads bonding problems between mother and child. A person who needs long term medical treatment for a disorder, with an unplanned pregnancy leads concerns about both how will medical treatment go on and will drugs cause harm to baby. In a condition that unplanned pregnancies occur while they take medicine, patients prefer instantly cessation of medical treatment according to their belief about the drug will harm to their baby or may prefer to terminate their pregnancies.

According to 2008 TNSA data, between 15 and 49 years old in our country almost 3 women in 10 have unplanned pregnancies and 2 of 10 have undesired pregnancy. According to a study, made in England in 2013, approximately 45% of pregnancies were unplanned pregnancies and according to data from 2009, in Russia, 23% of all pregnancies were unplanned pregnancies and 23% of pregnancies were undesired pregnancies.

This study is the first study, about epidemiology of unplanned pregnancies and undesired pregnancy, that compares psychiatric disease, epilepsy which is a neurological disease has a chronic course and healthy people.

28 pregnancies of healthy pregnancies (18.7%), 30 pregnancies of pregnant with epilepsy and 107 pregnancies of pregnant with psychiatric disease had unplanned pregnancy. Undesired pregnancies were seen significantly high in which had a psychiatric disease than the others.

The ratio of unplanned pregnancy is 67.8% for psychotic disorders, 60.7% for bipolar disorders and 60% for major depressive disorder. Among these disorders, there isn't a significant difference about unplanned pregnancy ratio, but unplanned pregnancy ratios were seen higher in patients with psychotic disorder which had loss of insight more than the others.

Undesired pregnancy ratio was 4.6% in healthy pregnant, 5.4% in pregnant with epilepsy and 23.6% in pregnant with psychiatric disease. Among epilepsy patients and healthy groups there isn't any statistically difference, but undesired pregnancy ratios were significantly high in pregnant with psychiatric disease than the other groups.

Evidences of this study, unplanned pregnancies have been higher in women with psychiatric disease, comparing to others, but there was no significant difference, this ratio has been seen high in women with schizophrenia disorders which have more disruption of ability of assessment than the others.

Creating a special unit by medical employees to women with psychiatric disease, for planning pregnancies and follow up is important for preventing the risk as cessation of medical treatment instantly and exacerbations of disease or without knowledge of whether there is necessary terminating the pregnancy and mother-baby bonding problems from undesired pregnancies, occurred after unplanned pregnancies.

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## Addiction and emotion regulation

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DSM-IV defines emotion as "a state of arousal defined by a group of subjective feelings that direct a person to an action and the physiological changes that often accompany it".

Thanks to emotions, the organism finds a way to stay alive by responding to situations or objects that could be dangerous or beneficial. Emotions do not only help survival but also help members of the species that have similar feelings at the same time live together, develop

empathy and have the rules of living together.

Emotion regulation can be defined as a process in which we try to affect which emotion we are going to have and which determines how we are going to experience or express an emotion when we have one.

5 strategies are proposed for emotion regulation. These are Situation Selection, Situation Modification, Attention Deployment, Cognitive Change and Response Modulation.

Despite being functional, when emotions do not arise in the proper context, when they are intense, when they last very long or when they are not compatible with the situation they can pose a problem. For this reason, when the individual does not change emotional responses in the manner that is desired and aimed for, a difficulty in emotional regulation arises.

Drug addiction can be defined as an illness that affects the reward, motivation, memory and decision making mechanism in people's brains and that gets chronically worse due to the addicted person being uncontrollably impulsive about drug abuse.

It is known that there is a two-way relationship between alcohol/ drug abuse and psychiatric disorders. Alcohol/ drug abuse can cause psychiatric symptoms and syndromes to arise and psychiatric disorders can cause alcohol/drug abuse disorders. Alcohol/drug addiction can mask several psychiatric disorders, mimic them or be their complication.

Studies on individuals who abuse substances reveal that these individuals have emotion regulation difficulties. In particular, impaired emotion regulation system in individuals with post traumatic stress disorder significantly increases the risk of substance and alcohol dependence.

It is claimed that individuals with difficulties in emotion regulation are turning to addictive substances for the sake of escaping the emotions they are unable to control and that this situation gives rise to problems related to addiction.

It has been shown that the anxiety and depression levels of patients with alcohol and substance abuse disorder are high and that their coping skills are low. Also, it can be said that the level of anxiety sensitivity is high in these people and that people with high anxiety sensitivity turn to alcohol and substance abuse with the idea of escaping traumatic or negative experiences and that this situation can be a reason for the start of the addiction process.

The Self-Medication Hypothesis defends the view that individuals abuse substances in order to cope with their illness and that addiction develops over time. According to this hypothesis, patients begin to abuse the substance to change their emotional state, reduce their anxiety and to cope with some cognitive impairment. As a result of the masking of the affective disorder that is hidden by the abuse of alcohol or substance with the purpose of treating themselves (self-medication), the underlying affective disorder gets more and more aggravated. Patients in this masked state can continue their lives in harmony with the environment and their family without being noticed. This situation is more pronounced in some bipolar patients. For example, patients can have a tendency to take alcohol/substances to calm hyperactivity during the manic period or to get rid of feelings of boredom, tenseness or restlessness during the depressive period.

In addition, individuals with attention deficit and hyperactivity disorder are known to abuse alcohol and substances at very high rates. It can be mentioned that those with ADHD have difficulties with emotion regulation and therefore turn to substance and alcohol abuse and that in a way they are prone to addiction for the purpose of self-medication. In this presentation, the relationship between substance addiction and emotional regulation will be discussed.

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## The treatment of neuropsychiatric disorders

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Dementia is a broad category of neurodegenerative brain disease which is characterized by decreases in cognitive functions and abilities of daily life activities, language problems, behavioral changes and psychiatric symptoms. The most common type of dementia is Alzheimer's disease, which makes up 50% to 70% of cases. Due to the progressive nature, early diagnosis and early treatment is essential in Alzheimer's disease. Although there is no known exact treatment of Alzheimer's disease, some treatment modalities has been developed to delay the progression of the disease and for symptomatic improvement after the discovery of relationship between the disease pathophysiology and decrease in cholinergic functions and increase in glutaminergic activity. Nowadays, the approved agents in the treatment of Alzheimer's disease are acetylcholinesterase inhibitors (donepezil, rivastigmine and galantamine) and NMDA receptor antagonist (memantine).

Parkinson's disease is a progressive neurodegenerative disorder characterized by tremor, rigidity, bradykinesia, and gait disturbance. Levodopa is the most effective medication available for treating the motor symptoms of Parkinson disease; other medications (e.g.,

monoamine oxidase type B inhibitors [MAOBIs], amantadine, anticholinergics,  $\beta$ -blockers, or dopamine agonists) may be initiated first to avoid levodopa-related motor complications. Although no available therapies alter the underlying neurodegenerative process, symptomatic therapies can improve patient quality of life.

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## miRNA in major depressive disorder

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Major depressive disorder is the most frequent psychiatric disorder. MicroRNAs control gene expression at post-transcriptional level by inducing mRNA degradation. Because of mentioned traits microRNA expression has been deeply investigated in major depressive disorder. There are several studies conducted in post-mortem studies, peripheral tissues. Here in this session we will describe microRNA biogenesis, synthesis and function. Further we will discuss some of importance studies to give a picture of available data. Finally, we will be finishing with suggestions for further research.

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

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

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

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

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

**Keywords:** gender dysphoria, children, comorbidity

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## The effect of thought disorders on remission of symptoms and psychosocial improvement in schizophrenia

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Thought and language disorders are one of the fundamental symptom clusters of schizophrenia. Thought disorders that exacerbate in acute episodes might persist during the illness chronically in a vague form. In severe mental disorders such as schizophrenia, psychosocial functioning is an important dimension as well along with symptoms in phases of diagnosis and assessment. The aim of this study was to examine the relationship of thought and language disorders seen in schizophrenia with the course of symptomatic remission (SR) and psychosocial functioning.

The study was carried out with the sample consisted of 117 patients diagnosed with schizophrenia according to DSM-IV-TR. The patients were assessed with the Positive and Negative Syndrome Scale (PANSS), the Thought and Language Index (TLI), and the Personal and Social Performance Scale (PSP).

Statistical significance was found between patients in SR and patients not in SR in terms of poverty of speech, weakening of goal, peculiar logic, and impoverishment of thought and disorganization of thought. Peculiar logic, peculiar sentence construction, and especially poverty of speech indicating negative formal thought disorder were found to predict the dimensions of psychosocial functioning.

Patients in SR showed less impoverishment of thought/ speech and disorganization of thought compared to patients not in SR. Thought and language disorders were significantly correlated with psychosocial dysfunctioning in schizophrenia. Social activities, personal/ social relations and aggressive behaviors are associated aspects with impoverishment of thought and disorganization of thought.

**Keywords:** schizophrenia, thought disorder, language disorder, symptomatic remission, psychosocial functioning

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## Patient selection for bariatric surgery: Which patient is suitable and which patient is not?

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Obesity has become an important subject in today's world especially for well developed countries. WHO has described obesity as a disease and classified BMI level lower than 18.5 kg/m<sup>2</sup> as underweight, BMI level between 18.5-25 kg/m<sup>2</sup> as normal, BMI level between 25-30 kg/m<sup>2</sup> as overweight, BMI level between 30-35 kg/m<sup>2</sup> as grade 1 obesity, BMI level 35-40 kg/m<sup>2</sup> as grade 2 obesity, and BMI level higher than 40 kg/m<sup>2</sup> as grade 3 obesity. 33% of women and 27.6% of men in USA have BMI level 30 kg/m<sup>2</sup> and higher. It is established that 40% of men; 50% of women and 44.4% of young adults have BMI level more than 25 kg/m<sup>2</sup> according to the "Obesity and Hypertension Research in Turkey" which made on 23,800 participants between the years of 1999-2000. It is obvious that medical morbidity and mortality rates will increase as obesity rates increase. It is shown that patients have BMI level more than 35 kg/m<sup>2</sup> have two times higher mortality rates comparing to population at normal weight, young obese patients have shorter lifetime, reduction of the lifetime up to 20 years at grade 3 obesity. There are various obesity treatment modalities, but bariatric surgery has become more important according to the remarkable results in weight loss. With the use of laparoscopic techniques and newer modalities at morbid obesity surgery, post-operative complication rates decreased and so literatures on success of bariatric surgery on weight loss are increasing. But bariatric

surgery indications are the subject of our speech today. It is important to identify which patients are suitable for the surgery and which are not. Several studies have shown that prevalence of psychiatric disorder is higher at the patients applied for the bariatric surgery. Some psychiatric problems in the near past lower patient's ability of handling post-surgical stress so primarily treatment of psychiatric problems is suggested. Eating disorders are not contraindicated for bariatric surgery if the patient doesn't have laxative or diuretic abuse. Psychosocial problems listed below are contraindications for bariatric surgery:

1. Patient's inability of attendance to a long term medical follow-up program.
2. Patient's inability of self-care and lack of social support.
3. Alcohol and psychoactive substance abuse.
4. Unstable psychiatric disorder
5. Major depressive disorder and major personality disorders

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## Is bariatric surgery the last choice?

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Obesity is a complex issue for managing it, and sometimes caring of obese patients might be difficult. Additionally, sometimes psychopathologies might show comorbidity with obesity; at this point, a better assessment, and an expert guidance come into prominence. Psychological assessment of obese patients is beneficial for noticing other eating disorders or anxio-depressive disorders that maintains their overweightness. Mostly, patients might have reasonable worries about their weight control, and questions about symptomology of obesity; however, these questions are main elements for a true diagnosis.

Psychotherapy provides a more effective weight controlling; efficaciousness of cognitive behavioral therapy (CBT) on treating obesity disorder (OD) has been being demonstrated. New psychotherapeutic approaches still have been being trying; for example, hypnosis, and mindfulness intend emotional managing and stress coping. Moreover, body-image deficiency and resultant body dissatisfaction can heal with goal-directed therapy technique.

Studies clarify psychological disorders are commonly seen on patients who suffer from eating disorders (ED). One of the studies was made with 404 patients, who have binge eating disorder (BED) and BED comorbidity, and lifelong psychiatric disorders were found on 73% of the patients and 43% of these patients had at least one psychiatric disorder. Furthermore, the same study shows that 50% of the patients had affective disorders, 37% of them anxiety disorders, and 24% of the sample had alcohol-substance abuse or addiction. There had been found an association between BED patients and psychiatric disorder comorbidity.

If OD shows comorbidity with posttraumatic stress disorder (PTSD), Eye Movement Desensitization and Reprocessing (EMDR) will be a preferable treatment option—if social environment is suitable, family therapy might be another therapy option- PTSD seems 24% among people who do not have OD, however on people who have OD, PTSD had been determined as 32.6%. When this data was reanalyzed in basis of demographics, having depression, alcohol-substance abuse, and psychotropic medication states, people who have PTSD show strong correlation with OD.

Psychotherapy has an important role on losing weight. CBT is an evidence-based therapy technique, which comprises exercising, eating behaviors, life style changings, and goal setting. Psychotherapy is especially usable for loosing motivation, interruption of weight loosing, increasing of psychological pressure, and lack of social support. If OD is comorbid with BED, dieting must be the priority before the bariatric surgery. During treatment period of OD, maintenance of the weight is significant beside of losing weight.

Healthcare professionals must emphasize losing weight is necessary for patients' health, so professionals must focus on loosing few amounts of weight in the beggining. In light of this information, substance abuse, depression, and anxiety disorders might be comorbid with morbid obesity; nonetheless, professionals must be careful about resistance that comes from other mental disorders. Most particularly, ADHD, and PTSD are disorders that can be treated more quickly by comparison with other psychiatric disorders; therefore, paying attention to these disorders is important. In conclusion, before applied to the bariatric surgery, psychiatric examination must be completed, moreover if there are any comorbid disorders, recognition of them is important.

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## Autistic spectrum disorders and their relationship with psychotic disorders

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Early diagnosis and long term follow up of neurodevelopmental disorders of childhood has enabled us to observe the relationship of these disorders with adult psychopathologies. It has long been known that problems with social interactions in childhood are one of the most important predictors of adult schizophrenic disorders. But it's only in the last decade that these social deficits have been interpreted in terms of autistic psychopathology and long term follow up studies have been done around this issue. Genetic and family studies plus neuroimaging studies all point at the relationship of autistic spectrum disorders and schizophrenic disorders. This relationship is more prominent in childhood onset schizophrenia and 30% to 50% of these cases develop on the basis of autism spectrum disorders. This talk aims to tackle on the links and the causality of the links between autistic spectrum and schizophrenic spectrum disorders.

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## Four Predictions for the future of addiction treatment

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Addiction treatment has changed dramatically over the decades, but one thing has remained constant—there are no easy answers, either for those struggling with substance use disorders or those attempting to help them. Still, science gives us much to hope for, and accumulated experience is teaching us better each day what works and what doesn't. Here are four predictions for what's just over the horizon in addiction treatment:

1. We will broaden our definition of success:

By moving away from our current focus on continuous abstinence as the only or best measure of success, we can build upon and celebrate every reduction in drug or alcohol use. The treatment process is then a journey, not a one-time shot at sobriety that the addicted person either passes or fails. It recognizes that people often relapse during the recovery process (link is external) and that improvement most commonly comes over the long term.

With this more inclusive mindset must come a commitment to providing addiction treatment that follows the individual with a substance use problem through each stage of their journey. That, in turn, translates to less time spent using or drinking and, by extension, better quality of life, a decreased risk of overdose, lower rates of criminal behavior, less risk of sexually transmitted infections, and increased employment—all of which help not only the person in recovery but all those in their orbit.

2. Vaccines will supplement current treatments:

Medical advances promise a brave new world of addiction treatment that includes vaccines that can block or dampen the high from drugs. Already, clinical trials of a cocaine vaccine have indicated promise for creating "immunity" to cocaine. A heroin vaccine shows potential as well.

There are concerns: the protection may last only a limited time in some cases and some fear coercive use of vaccines. Still, for those struggling to put substance use behind them, vaccines could be a powerful tool.

3. We will stop treating every addiction in the same way:

Drugs of abuse either directly or indirectly affect the reward circuitry of the brain, and for that reason, they have been lumped in the same category. As a result, one-size-fits-all treatment has become the norm. It's an overly simplistic view that ignores the vast differences in the properties of various substances and their effects on those who use them.

The reality is all substances (and the people who use them) are not the same, and treatment shouldn't be either. Heroin addiction and alcohol addiction, for example, have different risks and challenges and should be approached in different ways. Recognizing this, as well as the reasons behind the person's substance use, will make success more likely and can head off negative consequences.

4. Treatment of will be paramount:

It is not always clear which came first, but it's now well-understood that addiction tends to go hand in hand with other disorders, such as depression, anxiety and trauma. Treating someone demands a commitment to treating the other; otherwise a negative outcome is all but

certain. Studies have found, for example, that depression quadruples the risk of relapse in alcoholics in the first year of recovery, and an 11-year study of heroin addicts found that mood disorders adversely affected every outcome in both the short and long term.

To provide effective help to those with co-occurring disorders, the skills and training of substance abuse counselors must expand. In addition, it's crucial that fully integrated psychiatric and mental health diagnosis and treatment be provided at every level of addiction care. It's a future that won't come easy, but it's one that will be well worth the effort.

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## Treatment approaches in psychiatric complications and comorbidities induced by cannabis and synthetic cannabinoids

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Psychotic disorders, depressive disorders, bipolar disorders, anxiety disorders, sleep disorders and cognitive disorders are among the psychiatric complications and comorbidities induced by cannabis.

The studies have shown that the relation between cannabis use and the development of psychotic disorder is mediated by the age of onset of the substance use and genetic predisposition; the risk of schizophrenia-like psychosis is two-fold in patients who had started to use cannabis at the age of 18 years, while this risk is 4-fold in patients who had started to use cannabis at the age of 15.

Psychiatric disorders like major depressive disorder, suicidal thought or suicidal act are seen in youth who use cannabis. Cognitive disorders like persistent defects in making decisions and brain activity and delirium are seen in heavy cannabis users. Chronic cannabis use can result in amotivational syndrome and deficits in memory. Synthetic cannabinoid use may lead to psychotic disorders and delirium. Synthetic cannabinoid use is associated with more severe mental impairment and psychotic disorders are more commonly associated with synthetic cannabinoid use than cannabis use. Comorbidity that is associated with cannabis and synthetic cannabinoids may develop before or after substance use or worsen substance use. Psychotic disorders, anxiety disorders, mood disorders, attention deficit hyperactivity disorder and sleep disorders are among the comorbid psychopathologies. Basic principles in the treatment of the psychiatric complications and comorbidities induced by cannabis and synthetic cannabinoids can be summarized as: (1) Psychosocial interventions should be a part of the treatment program in addition to the pharmacological treatments (2) Treatment should be individualized for every patient; although the treatment of substance use is recommended to be initial in some of the patients, the current approach is the concurrent treatment of both substance use and comorbid disorders except the situations when there is a contra-indication for concurrent treatment (3) It should be noted that; medications for some comorbid disorders, including stimulants for attention deficit hyperactivity disorder, may be abused; the risk-benefit ratio should be considered in treatment (4) The medications of patients should be administered in a controlled way and monitored by the parents (5) The parents should be involved in treatment.

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## New diagnoses in the DSM-5 and epidemiological uncertainty

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Epidemiology is a specific area that examines the distribution, risk factors and prognosis of disease in the community. It contains various forms of research to determine and to predict the health of society. The descriptive, analytical and etiological research forms are applied to mental health problems in psychiatric epidemiology. Classically, the epidemiology of psychiatric disorders is discussed in the context of general chronic disease epidemiology. The data of psychiatric epidemiology research provided many benefits such as planning of preventive mental health services and implementation, to be taken under the control of risk factors, close monitoring of risk groups, reduction of disability, improving the services offered to the community. The epidemiological data of psychiatric disorders were studied

in various place, culture and populations. This invaluable information was used in daily practice, various fields of research and the need for regulation of the health care system. The psychiatric disorders classification systems are vital for focusing the research areas and splitting the disorders according to some kinds of specific features. As it is known, the guidelines, classification systems and treatment algorithms may be changed according to novel research, clinical needs, to clarify the unclear areas and social requirements in regular time periods. DSM has been regularly revised since 1952. There are approximately 15 years between DSM-IV-TR and DSM-5. In this period, there has been an abundance of new knowledge about mental disorders. In DSM-5, dimensional approach was removed whereas it is seen that emphasis on gender differences and cultural situation. In addition, some diagnosis criterion and uncertain subtypes (as not otherwise specified) were changed also some diagnosis replaced in different or new group. Furthermore, some new diagnosis (as Social (Pragmatic) Communication Disorder, Disruptive Mood Dysregulation Disorder, Premenstrual Dysphoric Disorder, Hoarding Disorder. etc.), new subtypes (as other specified and unspecified) and specification (as seen specify if) of the disorders were added to classification system in DSM-5. In my presentation, I focused on the epidemiological uncertainty of new diagnosis, new subtypes and conditions for further study (as attenuated psychosis syndrome, depressive episodes with short-duration hypomania, persistent complex bereavement disorder, caffeine use disorder, internet gaming disorder, neurobehavioral disorder associated with prenatal alcohol exposure, suicidal behavioral disorder, non-suicidal self-injury). This kind of discussion may reflect the new horizons for epidemiological studies and psychiatric disorders.

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## National data on the epidemiology of mental disorders and upcoming new studies

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Psychiatric epidemiology is a branch of psychiatric research examines the distribution of the psychiatric disorders in the community and physical, biological and social factors that affect this distribution. These studies are usually done on three levels those descriptive, analytical and experimental studies. The core values of psychiatric epidemiology are incidence and prevalence. Psychiatric epidemiology is the basic science of preventive psychiatry. The main purpose of psychiatric epidemiology is to determine the prevalence of psychiatric disorders, frequency and identification of risk factors, the identification of risk groups, the integration of epidemiologic data and clinic data, the clinic, course, outcome and comorbidity of psychiatric disorders and the effect of psychiatric disorders on quality of life and disability. Major depressive disorder, schizophrenia, bipolar disorder, alcohol and related disorders and obsessive compulsive disorder cause severe disability and deterioration in quality of life. There is only one study in Turkey "Mental health profile research of Turkey" was made with nationwide sample between 1995 and 1996. The number of epidemiological studies in Turkey is inadequate. There is an increased need for new studies considering the changes in DSM-5. In future, longitudinal cohort studies, case controlled studies and genetic epidemiological studies should be done to determine predisposing conditions and risk factors of psychiatric disorders. Thus, preventive psychiatry develops in our country.

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## Current scientific EMA/CHMP clinical guidelines within psychopharmacology; recent updates and highlights

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This presentation will cover the critical contents of some of the clinical guidelines for drug development in psychiatry issued by the European Medicines Agency (EMA - [http://www.ema.europa.eu/ema/index.jsp?curl=pages/regulation/general/general\\_content\\_000085.jsp&mid=WC0b01ac0580027549](http://www.ema.europa.eu/ema/index.jsp?curl=pages/regulation/general/general_content_000085.jsp&mid=WC0b01ac0580027549)).

The talk will go through the Guideline on clinical investigation of medicinal products in the treatment of depression (2013) and Guideline on clinical investigation of medicinal products including depot preparations in the treatment of schizophrenia (2013). Topics of special interest in the guidelines e.g. related to practical difficulties in clinical trials will be pointed out and discussed briefly.

The talk will also touch on the content of the draft Guideline on the clinical investigation of medicines for the treatment of Alzheimer's disease and other dementias, and draft Guideline on the clinical development of medicinal products for the treatment of Autism Spectrum Disorder, both at the moment released for public consultation.

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## Animal models of schizophrenia, cognitive function assessment

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### 1- Measurability of the schizophrenia models

#### Prepulse Inhibition (PPI)

Prepulse Inhibition (PPI) is a neurological phenomenon in which a weaker prestimulus inhibits the reaction of an organism to a subsequent strong startling stimulus. In the animal models, stimuli are acoustical.

Disruption of sensory motor gating has been shown the important biological deficit in thalamo-cortico-striatal pathway. The disruption of prepulse inhibition (PPI), a well characterized model for identifying sensory-motor gating deficits in schizophrenia and this phenomenon have been used both experimental animals and humans

Therefore, PPI deficits are not typical to specific disease, but rather tell of disruptions in a specific brain circuit.

### 2- Cognitive function assessment of schizophrenia models

During last decades evidence has accumulated that schizophrenia is associated with significant impairment in cognitive functioning. Specifically, deficits in attention, memory, and executive function have been consistently reported in patients with schizophrenia. Memory and deep encoding are major areas of cognitive deficit in schizophrenia. Chronic patients with schizophrenia exhibit greater memory impairment than acutely ill patients.

The radial arm maze and Morris water maze have been most extensively used to investigate specific aspects of spatial learning.

#### Eight Arm Radial Maze

This task is based upon the premise that animals have evolved an optimal strategy to explore their environment and obtain food with the minimum amount of effort. A radial arm maze can easily be built by the investigator, so the cost for this equipment can be quite low compared to other behavioral testing equipment. Using the maze, however, is quite labor-intensive and requires that a tester be present throughout the task. The maze is typically used for rats, but it can be scaled down in size for use with mice.

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## Diagnostic and therapeutic Approaches cannabis / synthetic cannabinoids use disorders in emergency and outpatient settings

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Cannabis has been widely used both in Anatolia and the whole world for centuries. Tetrahydrocannabinolic acid (THC) is the active agent of cannabis and acts via C1 and C2 receptors.

Although the effect and duration of action varies with the quality and the way of administration, the intoxication state remits after a maximum of 5-6 hours. As the THC is a partial agonist, there is no increase in its effect even though the dose is increased. The patients generally refer to the outpatient clinic with a presentation of addiction or complications. On the other hand, the patients refer to the emergency department with a wide spectrum of complications ranging from brief psychotic episode to persistent psychotic presentations.

Approach to the patient is symptomatic in all of these presentations. Synthetic cannabinoids (SC) have become the nightmare of nearly all of the doctors from the time they are introduced to the market. Many of the SCs cannot be traced in toxicology laboratories, are full agonist to the receptors of THC and hundred-times more potent than THC, also; the ingredients of the toxic substances of SCs are unknown. Clinicians are faced with a wide spectrum of presentations ranging from panic attacks to psychotic episode, coma to delirium. Regretfully; no specific treatment or antidote has been found up to now.

**Key words:** cannabis, synthetic cannabinoids, treatment

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## Emotional rejection of the infant

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Emotional rejection of the infant is a morbid, clinical phenomenon, central to mother-infant psychiatry. Its frequency is about 1% of births in the general population, but much higher in mothers referred to services. It has severe consequences for children, but responds well to treatment. It is now better recognized, but research is required, especially cohort studies and neuro-scientific investigations.

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