

INVITATION

It is our great pleasure to announce that the Turkish Association for Psychopharmacology (TAP)'s 12th International Congress on Psychopharmacology & 8th International Symposium on Child and Adolescent Psychopharmacology will be held on November 17-20, 2021 in Antalya, Turkey.

12th ICP & 8th ISCAP Organizing Committee

ISBN no: '978-605-70422-8-6'

CONFERENCE PROCEEDINGS

Web Site Link: www.psychopharmacology2021.org

ICP 2021 Symposia Presentations

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Symposia Presentations

12th International Congress on Psychopharmacology &
8th International Symposium on Child and Adolescent Psychopharmacology

[Abstract:0271]

0271 - A phenomenological approach to the current neurobiological studies of dreams and consciousness

Sena Yenel

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Studying of dream experiences has been one of the most interesting area in the clinical practice of psychotherapy. Especially in the last two decades studies of dream and consciousness has become a novel research area of neuroscience after FMRI and high intensity eeg studies. Recent neurobiological studies revealed that the dream experience consist of all the sensory information and modalities very similar to waking state as well as the constructions of dreams which are mostly experienced by the dreamer him/herself at the center of the dream. Thus we may be able to consider and research about a state of consciousness during dream experience. In this presentation we aim to discuss the dreams and consciousness in a phenomenological approach to them by reviewing the current neurobiological studies.

Keywords: consciousness, dream, sleep, neurobiology

[Abstract:0276]

0276 - An example of usage of phenomenological approach in psychotherapy: phenomenological dream self model

Meryem Feyza Bağlan Eroğlu

Private Practice

Phenomenology is the study of structures of consciousness as experienced from the first-person point of view. The central structure of an experience is its intentionality, its being directed toward something, as it is an experience of or about some object. Phenomenology within psychology is the psychological study of subjective experience. It is an approach to psychological subject matter that has its roots in the phenomenological philosophical work of Edmund Husserl. In phenomenological approach in psychotherapy, we let the subject to express himself/herself without any judgement. S/he depicts his/her emotions, thoughts, feelings, intentions and behaviors. Since the subject experiences wakefulness, the same subject experiences also the dream life. In other words, dreams are one part of life experiences, too. Then we may take dreams into consideration with phenomenological approach in psychotherapy. Here we use Phenomenological Dream Self Model (PDSM). We state that since there is a self who experiences waking life, the same self experiences dream life, too. The feedback of the therapists who use the model is that the model dreams are effective and reliable in therapy. The dream self is not different from the awakening self in terms of basic phenomenological qualities This dream self is like the waking self, it is at a "moment", in a "place", in "perception", and in "emotion". This dream self is always in an intentionality for an object just like the waking self. With a four-stage process, the PDSM examines the clients experience of the dream self first and then the experience of waking self, with phenomenological sensitivity. The most important point that differentiates PDSM from the previous dream theories and models is that it doesn't separate the individual from the phenomenal experience in all four phases and it is avoided to impose something that the clients haven't said about their dreams by depending on some theories and assumptions.

Keywords: phenomenology, self, dream, phenomenological self dream model, psychotherapy

[Abstract:0288]

0288 - Progress of approach to the use of dreams in psychotherapy

Gökhan Özcan

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The general aim of this paper is to examine the differentiation and changes in the psychotherapy models over time in the therapeutic use of dreams starting with psychoanalysis in the history of psychotherapy; its special purpose is to emphasize the progress, importance and value of phenomenological attitude in dream studies. As a method, starting from the approach of classical psychoanalysis to dreams, Adlerian, Jungian, Gestaltian, Existentialist-phenomenological, Cognitive, Motivationalist and Hartmannian post-Freudian models in the theoretical perspective

and the use of psychotherapy practice is described. As a result of the study, it has been found that dream theory and practice from Freud to the present day have been removed from the assumptions such as unconscious, manifest-latent dream content separation and free association and symbol analysis techniques and approached a consciousness-emotion oriented phenomenological line. Nevertheless, these dream theories did not clearly claim that there was an original self that lived and experienced within the dream. It is an important issue for psychotherapists that contemporary dream models are increasingly approaching the self-centered approach.

Keywords: dream work, phenomenology, psychotherapy

[Abstract:0362]

0362 - A phenomenological view of self development in children, dreams as an experience of self

Mahmut Zabit Kara

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There is a very rich literature about self concept. While some speak spontaneously as fictional, it is a solid concept for some. The theoretical model behind the self concept will also directly affect the therapist's practical practices. One of the other approaches, phenomenological approach, has a special place in approaching the subject from a wider perspective. Although this phenomenological view asserts that self is the focal point of experience, it also emphasizes accessibility through consciousness. The phenomenological view seeks to enable the self to find expression "as what is" in therapy and to become competent without being recorded in a predetermined model or hypothesis. The phenomenological dream-self model (PDSM) is based on this view. According to this model, Dream is a self-centered life as in waking life and the therapy study focuses on the basic qualities of the dream self. In this session, a theoretical framework will be drawn on the development of the phenomenal self and the primary, fundamental characteristics of the phenomenal self within the developmental context from childhood to adolescence. The session will also discuss whether PDSM can be a useful and effective tool in exposing self-experience through externalization in child and adolescent therapy. The points to be considered according to the age group in the use of this model will be emphasized. Current studies investigating the structural characteristics of childhood dreams that thought to support this framework will be mentioned and practical case examples of how children and adolescent dreams are studied with this PDSM will be presented.

Keywords: Child and adolescent, Dreams, Phenomenological Dream-Self Model, Phenomenal Self, Therapy

[Abstract:0561]

0561 - Antineoplastics and psychiatric drugs

Ebru Şahan

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Pharmacokinetic interactions are a result of inhibition or induction of the CYP450 isozymes. Pharmacodynamic interactions occur when the concurrent use of two drugs results in an alteration of the therapeutic and/or toxic effects of either drug. These can be additive, synergistic or antagonistic. In psycho-oncology, most studies are about the simultaneous use of antidepressants and tamoxifen in breast cancer patients. Tamoxifen metabolism and its conversion to active metabolites are prevented by inhibition of CYP 2D6 and treatment effectiveness decreases. Fluoxetine inhibits CYP 2D6, moderately CYP 2C19 and 2C9 isoenzymes. Sertraline can also cause moderate inhibition of CYP 2C19 and fluvoxamine is a strong inhibitor of CYP 1A2, 2C9 and 2C19 isoenzymes. For paroxetine, strong inhibition is for CYP 2D6 and 2B6. Less pharmacokinetic interaction is shown with citalopram and venlafaxine. Milnacipran stands out for minimal hepatic metabolization. Anticonvulsant gabapentin is not known to affect CYP2D6 activity or the formation of endoxifen. Altretenamine and lomustine are subject to extensive hepatic metabolization, when used with fluoxetine, fluvoxamine and paroxetine, the effectiveness is reduced. Cyclophosphamide and procarbazine are metabolized by CYP 2B6, inhibitors of CYP 2B6 (e.g. paroxetine to a greater degree and fluoxetine, sertraline, fluvoxamine and bupropion to a lesser degree) can reduce the effectiveness of these antineoplastics. Procarbazine, dacarbazine is subject to metabolization with CYP 1A; therefore, using this isoenzyme's inhibitors (e.g. fluvoxamine) can reduce its effectiveness. Ifosfamide, thiotepa, toremifene and sunitinib are metabolized by CYP 3A4. The inhibitors of this isoenzyme (i.e. fluoxetine, sertraline, paroxetine and fluvoxamine) may increase the plasma concentration. For the antimicrotubules category (vinblastine, vincristine, vindesine, vinorelbine), taxanes (docetaxel and paclitaxel), corticosteroids, etoposide, irinotecan and sorafenib, overlap use with CYP 3A4 inhibitors can increase toxicity, and CYP 3A4 inducers reduce efficacy. Exemestane and letrozole, the likely toxicity with the use of CYP 3A4 inhibitors is translated into myalgia, constitutional symptoms, peripheral edema and hot flushes. Regarding imatinib, the most prominent adverse symptoms are the weight gain, nausea, vomiting and neutropenia. The toxicity of dasatinib can also increase with the coadministration of CYP 3A4 inhibitors [1]. Hypericum extracts (St John's Worth)

induces CYP 3A4, daily dosages over 900 mg decreases concentrations of imatinib, irinotecan or taxanes [2]. Certain psychotropic drugs cause blood dyscrasias, such as clozapine, phenothiazines, carbamazepine and, probably less often, mianserin and mirtazapine. When used in conjunction with cytotoxics, profound agranulocytosis can result, with substantial risk of life-threatening infection. Use of lapatinib, a tyrosine kinase inhibitor with antipsychotics and tricyclic antidepressants that also prolong the QTc interval should be avoided. If cannot be avoided, close monitoring of QTc is clearly advisable. Dopamine agonist antiemetic drugs (haloperidol and metoclopramide) when used in combination with antipsychotics, acute movement disorders are more likely to result. Cyclizine and 5-hydroxytryptamine 3 receptor (5-HT₃) antagonists might be preferred in such patients [3]. In conclusion, for cancer patients selecting a psychotropic drug is a challenge that must target 'not to harm'.

Keywords: anticancer drugs, antidepressants, antipsychotics, psycho-oncology, drug interactions

[Abstract:0651]

0651 - Evaluation of the sociodemographic characteristics of victims applying to the child advocacy center-the first established child advocacy center experience

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Childhood sexual abuse (CSA) is associated with both short and long-term adverse mental and physical health consequences, yet there remains considerable controversy about the prevalence of CSA in the general population. Since CSA is a crime under the law in many countries, when it is exposed, a criminal investigation is launched. Apart from the judicial investigation, professional work of many professionals such as social services and health workers is needed in the process. Child Advocacy Centers (CAC), established for this purpose, are child-friendly centers that ensure that forensic, medical and social procedures are carried out in a center consisting of educated people in this field and in one time, in order to prevent children who have been sexually abused from being subjected to secondary trauma in the process. In this retrospective study, the socio-demographic data of children who have been subjected to forensic sexual abuse in Ankara Child Advocacy Center are examined, and it is aimed to identify the priority groups in the determination of risky groups and intervention studies to prevent sexual abuse and to plan the studies for the recognition of the child who has been abused earlier. Retrospective file records of children and adolescents aged 0-18 years, who were referred to Ankara Yıldırım Beyazıt University Yenimahalle Education Research Hospital Child Advocacy Center between January 2016 and December 2019 by the judicial authorities were examined. The sociodemographic characteristics of the cases, the form of the abuse, the characteristics of the abuser were evaluated by keeping a record form. RESULTS: Of 6350 sexually abused cases, 86.5% were girls and 13.5% were boys. The average age of the girls was statistically higher than the boys (Girls = 13.55 ± 3.9; boys = 11.03 ± 4.9). 79.5% of the girls who were abused were over 12 years old; 62% of boys were found to be under the age of 12. 22.1% of girls were directed due to early marriage. 14.4% of the cases applied to CAC were incest cases. 86.6% of the cases referred with incest suspicion are girls and 13.4% are boys. While the most common type of abuse in incest cases was non-penetration touch (69.5%), the second line with penetration was found (21.8% in girls; 33.3% in boys). While the most common type of abuse in incest cases is non-penetrating touch (69.5%), sexual abuse containing penetration was found (21.8% in girls; 33.3% in boys) in the second place. Internal and external body examinations were performed in 17.4% of the applicants, and 6.6% were asked for a child psychiatric consultation for mental status assessment. Within the scope of social transactions carried out in CAC, 1261 children (20.8%) were taken into institutional care, and 1041 (17.2%) social studies were organized. CONCLUSIONS: In order to accurately inform early recognition, intervention and education programs for individuals with a history of CSA the frequency of sexual abuse must first be precisely quantified. Developing more standardized approaches will be important in order to improve our understanding of the extent of this problem.

Keywords: child sexual abuse, forensic psychiatry, Child Advocacy Center

[Abstract:0666]

0666 - Attention deficit hyperactivity disorder in women: effects on life and termination

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Although prevalence of ADHD in women in childhood is much lower than men, the prevalence becomes closer in adulthood, which brings to mind the question, "Is ADHD in males and females is different?" The studies have shown that the problem is same, but there are differences in the way the results are represented and the phenomenology. The half of the ADHD prevalence studies have shown there aren't differences

among sexes (Kooij, 2005), while the other half have shown that the prevalence is higher in males (Kessler, 2005). In the compilation conducted by Williamson and Johnston (2015) in one third of the comparative studies which inform the prevalence of ADHD, it was found that the prevalence is higher in females. In studies in wide range society samples it was found the prevalence of ADHD in males was found to be %2.1-5.4 (Bitter, 2010; Kessler, 2006), while in females it was found to be %1.1-3.4 (Bitter, 2010; Kessler, 2006).

In clinical samples, males' ADHD diagnoses become less frequent, while it becomes more frequent in females. Compared to females, the rate of incidence decreases in males, and the difference between females and males decreases (Williamson & Johnston, 2015). These differences may be explained as symptoms being overlooked by healthcare personnel or female children having attention deficit symptoms more at the forefront, resulting in lesser referral to child psychiatry. Another explanation may be the comorbidity in females may be overseen different than males. In males, ADHD symptoms are comorbid more with oppositional defiance behavior disorders and disruptive behavior disorders; in females, they comorbid more with depression and anxiety and the behavior problems increase the search for help.

Long Term Results in ADHD, Functional Impairment Areas

Long term ADHD related results were researched mainly by general academic standing, antisocial behavior, car driving, substance abuse, obesity, occupational functioning, self-respect and social functioning (Shaw, 2012). How the treatment changes these results is one of the important research subjects.

For many fields, researches which make comparisons between females and males are very limited. The results which compare the functional disruptions in ADHD between sexes aren't very consistent. The reason of this is because some of the measurements in researches are objective and some of them are subjective. There are some findings which are relevant to women with ADHD diagnosis observe themselves more negatively than men with ADHD diagnosis (Williamson & Johnston, 2015). While there aren't any differences between negative life experiences of women and men (Friedrich, Larsson, 2012), the impact rate of these negative life experiences were stated more in women (Garcia, 2012)

School Success

While early studies have shown that school success differs between women and men, in the studies which are up to date, which use a wide sample and a diagnostic criterion, these results couldn't be repeated. These up to date studies evaluate the academic success with objective data such as frequent grade retention, extra schooling, being placed in a special class (Biederman, 1994; Biederman, 2004). A meta-analysis which compares women and men on life-long academic success hasn't shown a difference between sexes (Frazier, 2007). In a normal society, academic success is lower in boys than girls. In the research conducted, it was shown that the academic success in women with ADHD is lower than the men with ADHD. When the severity of the symptom was controlled, it was seen that this result hasn't changed (Fedele, 2012).

When the differences between two sexes in academic success were measured with objective tests (GPA or grade retention), while it was seen that there isn't mainly a difference (Frazier, 2007; Biederman, 2004), few of the studies have approached success in a more general standing and they have also compared attributions such as being expelled from school. While it was found to be more in males compared to females, it should be known that these might be related to comorbid diagnosis such as behavioral problems. When people were asked how they evaluate their academic success, in other words their subjective evaluations, it was found consistently that somehow female ADHD patients have evaluated their academic success much negatively than the male ADHD patients. This might have various reasons: 1) Men with ADHD might have less insight on their conditions related to women with ADHD (Williamson & Johnston, 2015). Another hypothesis is that ADHD's social results might harm one's self comprehension and the feeling of sufficiency more in women compared to men (Williamson & Johnston, 2015). As a result when disruption in functioning was measured by objective tests, while there were similar profiles in men and women, the rates of disruption informed subjectively by women was higher than men. The reason of enunciation of functional disruption subjectively in women is higher than men could be related to the rate of incidence of depression and anxiety is higher in women.

Peer Relationships

Compared to men ADHD, women with ADHD diagnosis have informed more negative peer relationships. Women with ADHD diagnosis are perceived more atypical than men with ADHD diagnosis (Mikami Lorenzi, 2011). According to a clinical study with a small sample (N=141) which study the work and relationship problems, women and men experience problems evenly in ADHD (Kooij, 2013).

Suicide

In ADHD, especially in mixed type, the suicide rate is higher than the general population. This elevation is probably related to impulsivity (Murphy, 2002). The risk of suicide gets even higher in males with comorbidity of antisocial personality disorder and substance abuse disorders and in females with comorbidity of mood disorders (Barkley and Fischer, 2005; Biederman, 2003; Semiz, 2008; Young, 2003).

There aren't any approved suggestions for different implementations or for diagnostic evaluation and treatment between sexes.

Keywords: ADHD, Women, Prognosis

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[Abstract:0675]

0675 - Decision making biases in bipolar affective disorder

Damla Sayar Akaslan

*Department of Psychiatry, Ankara University School of Medicine, Ankara, Turkey***Decision Making Biases in Bipolar Affective Disorder**

Bipolar disorder is a mood disorder and main symptoms are not cognitive symptoms. But it is known that deficits in attention, executive function, verbal memory, learning, working memory, episodic memory and processing speed in bipolar disorder patients¹. Among cognitive functions, decision making difficulties are included in manic, depressive episodes and even during remission. Decision making processes are crucial in the successful judgments of the social and professional challenges of daily life. It becomes important to understand explanatory factors in decision making processes in patients with bipolar disorder. In recent years studies focused on affective decision making and associations between impulsivity, affective episodes, the perception of reward or punishment, suicidal behaviours^{2,3}. Studies especially examine how bipolar patients decide alternatives to degrees of punishment and reward using a variety of paradigms attempting to real life decision making process. Some studies show that reward processing and cognitive impairment are associated with poor functioning, decision making biases and higher levels of disability. On the other hand attentional biases become important in decision making biases. The nature of the relationship between information processing and affective episodes in bipolar disorder is not clear yet. Some studies point out attentional abnormalities during the processing of positive stimuli in depressive and manic episodes but not in euthymic states⁴. Evidences of cognitive impairments and impaired quality of decision-making are increasing in bipolar disorder. These impairments in cognitive functions and decision making might contribute to daily life difficulties and comply with treatments.

Keywords: decision-making, bipolar disorder, decision-making biases**References**

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[Abstract:0676]

0676 - Psychopharmacological approach to traumatic psychopathologies in children and adolescents

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The aim of this presentation is to discuss the recent information about the psychopharmacological approach to traumatic psychopathologies in children and adolescents. Childhood trauma is considered to be a significant environmental factor in the etiology of psychiatric illness. Posttraumatic stress disorder (PTSD) is the most common one among these psychiatric conditions. PTSD is the end point of an interaction between a subject, a traumatogenic factor and a social theme. Distinct subtypes of genetic vulnerability to childhood trauma and genetic polymorphism has been proposed in the development of PTSD via the regulation of the expression of genes through the serotonergic system and the adrenocorticotrophic axis. Clinical symptoms may vary according to the mainly intervening monoamine type. Therefore PTSD, may be presented with hyper-vegetative clinical symptomatology in relation with noradrenergic discharge. Whereas, serotonergic modulation may yield to avoidance behavior and depressive symptoms, whilst posttraumatic psychotic reactions may point to the role of dopaminergic pathways. It has been suggested to use prazosin (alpha 1-adrenoceptor antagonist) for treating nightmares in children and adolescents who have PTSD. Adrenergic agents, such as clonidine, used either alone or in combination with an SSRI may be beneficial in hyperarousal and impulsivity symptoms. Additionally, acute propranolol treatment has been suggested to prevent, anxiety, and depression symptoms in relation with PTSD, in children. It has been suggested to use SSRIs among children in cases with pre-existing anxiety and obsessive-compulsive and related disorders (OCDs). The SSRIs have been shown to have efficacy in treating the core symptoms of PTSD and conditions such as the anxiety disorders and depression that commonly co-occur with PTSD. These agents may also contribute to improving social functioning and an improved perception of quality of life. Some studies propose the use of second-generation antipsychotics in cases of severe self-injurious behavior,

dissociation, psychosis, or aggression in PTSD in children and adolescents. Adding a mood stabilizer may be effective in symptoms involving dyscontrol. Childhood trauma is a critical determinant of treatment refractoriness in post-traumatic stress disorder and other psychopathologies such as psychotic disorder, bipolar disorder and major depressive disorder and improving therapeutic strategies is essential. There is no data supporting one specific single type of treatment strategy in PTSD in children and adolescents. Therefore, controlled trials of medical agents in needed.

Keywords: children, disorder, posttraumatic stress, treatment

[Abstract:0680]

0680 - Management of hoarding disorder

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Today, treatment approaches such as cognitive-behavioral therapies, pharmacotherapy, psychoeducation, and psychosocial interventions are applied in Hoarding Disorder. However, family assessment and education should be also added to the other treatment method. Hoarding disorder symptoms can be normalized if family members have similar symptoms. In this context, there may be family-related difficulties during treatment. It is therefore very important to involve in the family to the treatment. Cognitive-behavioral therapies are one of the most commonly used approaches in the management of hoarding disorder. Cognitive approaches focus on assessment regarding the originality, structure, usefulness and emotional meaning of the objects. Behavioral approaches include creating goals, thinking exercises for the organization and disposal of things and resisting the hoarding instinct (1).

As a result, it has been reported that the response rate to treatment in hoarding disorder is 37-76%, especially paroxetine, sertraline, and venlafaxine are effective in hoarding management, methylphenidate treatment is promising, and the augmentation of quetiapine has limited effect and naltrexone enhancement is not effective (2).

Keywords: Hoarding, OKB related disorders, treatment

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[Abstract:0687]

0687 - Psychobiology and psychopharmacology of trauma

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Posttraumatic stress disorder (PTSD) is a severe and complex disorder that occurs when exposed to a psychologically traumatizing event. Since it requires a traumatic event to be diagnosed, we can say that it is one of the rare psychiatric disorders whose etiology we know. However, not every traumatic person develops post-traumatic stress disorder. This shows that there may be different psychological and biological changes in people who develop PTSD. Evidence to date indicates that there is a relationship between PTSD and many neurotransmitters and pathways in the brain. These include the biological irregularity of the opioid, glutamatergic, noradrenergic, serotonergic and neuroendocrine (e.g. The hypothalamic–pituitary–adrenergic axis) pathways. It has also been shown to vary in size and blood flow in different parts of the brain (e.g. reduce the size of hippocampus). Like PTSD's psychobiology, its psychopharmacology is mixed. It is not recommended to use drugs in the first place in many treatment guides. If it is to be used, it is recommended to choose antidepressants in the first place. In this presentation, the psychobiological features of PTSD will be emphasized in the light of current evidence and then psychopharmacological treatments will be mentioned.

Keywords: Psychobiology, Psychopharmacology, Trauma

[Abstract:0703]

0703 - An overview of the studies in children and adolescents

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Although hoarding is considered as a symptom cluster of Obsessive Compulsive Disorder (OCD) before DSM-5, now it is classified as a Hoarding Disorder under the title of OCD and Related Disorders with DSM-5 [1]. Hoarding Disorder seems to be mostly related to the adult age group however, it is reported that most of the patients had first signs of hoarding symptoms in childhood and adolescence and showed a chronic process. It is reported that the average age of onset of hoarding disorder is 11-15 years [2]. In considering the characteristics of developmental period, emotional attachment to items and objects is known as normal in preschool age period [3]. Nevertheless, due to the insufficient number of studies in the child and adolescent age group, some of the research data are based on history of childhood from adults. Almost, all studies involving this age group focus on hoarding behavior or symptom in obsessive compulsive disorder or a certain population. Additionally, there is no study of investigating the frequency of Hoarding Disorder in the population of children and adolescents in the literature. The largest study including adolescence period revealed that the prevalence of clinically significant hoarding symptoms is 2%, with a significantly higher prevalence in girls than boys. Excessive acquisition is reported by 30–40% among those with clinically significant hoarding symptoms. However, genetic predisposition is reported to be more higher rates in boys. In the same study, the prevalence of co-occurring in hoarding group is OCD (2.9%), ASD (2.9%) and ADHD (10.0%) respectively [4]. Finally; the diagnosis, treatment and prevention of mental disorders is also important in terms of elimination of problems in this age group as well as increasing the functionality in adult life and preventing the recurrence of problems in the future.

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Keywords: adolescent, child, hoarding disorder, hoarding symptoms, prevalence

[Abstract:0704]

0704 - New treatment options for an old disorder: gambling disorder

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Gambling disorder (GD) is a psychiatric condition featuring recurrent, maladaptive gambling behavior that leads to clinically significant distress. In 2013, GD was reclassified recently into the "Substance-Related and Addictive Disorders" group of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), a first for a behavioral addiction [1]. In this review, we provide a report on the state of pharmacological and psychological treatments for gambling disorder. Risk factors and potential future lines of research are also addressed. Despite pharmacological options to palliate GD symptomatology, several reviews of the literature point to psychological treatments as the most effective option for this disorder, and these are associated with significant improvements in both the short and the long term [2]. Cognitive behavioral therapy (CBT) has been shown to be especially effective for this behavioral addiction. Despite the effectiveness of CBT, few people with gambling problems seek clinical help, and this has led to an increase in research focusing on barriers that interfere with treatment access, such as lack of knowledge about treatment options or fear of stigma associated with the diagnosis of a psychiatric disorder among many other factors [3]. Despite the public health impact of gambling disorder and unlike in other psychiatric disorders, there are no medications formally approved for treatment of gambling disorder. Although the number of randomized controlled trials assessing the effectiveness of pharmacological treatments is limited, some pharmacological treatments, notably opiate antagonists, have been studied in the treatment of GD. A more recent review of the use of opioid antagonists on behavioral addictions concluded that both naltrexone and nalmefene were the only evidence-based pharmacological treatments for GD [4]. A recent meta-analysis quantified the effect size of risk factors in GD. These include 13 individual risk factors (alcohol use frequency, antisocial behaviors, depression, male gender, cannabis use, illicit drug use, impulsivity, number

of gambling activities, problem gambling severity, sensation seeking, tobacco use, violence, and under-controlled temperament), one relationship risk factor (peer antisocial behaviors), one community risk factor (poor academic performance), one individual protective factor (socio-economic status), and two relationship protective factors (parent supervision and social problems) [5]. Patients with GD often present cognitive distortions and specific personality traits, making treatment more difficult. Cognitive behavioral therapy has become the most common psychological intervention for treating gambling problems, and it is effective in reducing gambling behavior. With a focus on psychotherapy, studies have shown that the studied treatment programs yield benefits in reducing gambling problems, particularly cognitive-behavioral therapy in individual as well as in group settings. Since many interventions for gambling disorder suffer from low engagement and completion rates, it is important to foster the development of brief interventions and to find alternative ways of supplying help to affected people. Therefore, self-directed, computer-facilitated, web-based, and virtual reality interventions all warrant investigation and may extend the reach of existing treatments in the future. Moreover, the development of innovative approaches for the treatment of gambling disorder includes the evaluation of different cognitive and mindfulness trainings. In conclusion, it is necessary to incorporate the prevention of gambling disorder into our understanding of public health in order to draw public attention to this topic and to foster the development of new strategies for dealing with a changing landscape of gambling including new phenomena like mobile gambling.

Keywords: Gambling disorder, behavioral treatment, pharmacotherapy, cognitive behavioral therapy

[Abstract:0708]

0708 - Phenomenology of attention

Koray Karabekiroglu

Basically, 'attention' can be defined as 'the action of dealing with or taking special care of someone or something'. It is one of the basic functions of central nervous system. The term attention is an umbrella term and it includes several subdivisions such as focusing, concentration, arousal, alertness, motivation, response inhibition, filtering, etc. In addition, there are some other divisions such as, selective attention, sustained attention, divided attention, shifting attention, etc. The term 'phenomenology' can be defined as 'an approach that concentrates on the study of consciousness and the objects of direct experience'. Phenomenology is the study of structures of consciousness as experienced from the first-person point of view. The central structure of an experience is its intentionality, its being directed toward something, as it is an experience of or about some object. Intentionality refers to the notion that consciousness is always the consciousness of something. The word itself should not be confused with the "ordinary" use of the word intentional, but should rather be taken as playing on the etymological roots of the word. The mind is the set of cognitive faculties consciousness, perception, thinking, imagination, judgement, language, and memory. The concept of interaction between mind and body is a very important problem in the field of mind philosophy. Subjective perspective taking is the key concept of phenomenology and mind. The intentionality –whether intentional and with conscience or not- is the subjective explanation of mind. It necessitates focused attention and metacognition. In summary, psychophysiological processes underlying attentional functions are the key functions in the interface of mind. For an intentional, conscious, subjective and conscientious mind, someone needs regular and well-developed attention abilities.

Keywords: attention, phenomenology, mind

[Abstract:0709]

0709 - Nopicastat for the treatment of addiction

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Nopicastat is a potent and selective inhibitor of dopamine- β -hydroxylase (DBH). Dopamine - β - hydroxylase An enzyme that catalyzes the conversion of dopamine to norepinephrine. It is involved in the synthesis of small molecule membrane-bound neurotransmitters. It accelerates the formation of noradrenaline. Nopicastat is a novel inhibitor of DBH, the enzyme that catalyzes the conversion of dopamine to noradrenaline in sympathetic nerves. It is a member of the tetralines, an organofluorine compound, a primary amino compound, and a member of 1,3-dihydroimidazole-2-thiones. Administration of nopicastat to spontaneously hypertensive rats results in dose-related decreases in noradrenaline content, increases in dopamine content, and increases in the dopamine/noradrenaline ratio in the artery (mesenteric or renal), left ventricle, and cerebral cortex. In addition, while nopicastat decreases noradrenaline release in both the medial prefrontal cortex and the nucleus accumbens, it increases dopamine release in the medial prefrontal cortex. This drug may therefore be important in the treatment of cardiovascular disorders associated with overactivation of the sympathetic nervous system, such as congestive heart failure. In addition,

nepicastat has been investigated in the treatment of Cocaine Addiction and Post Traumatic Stress Disorder. Dopamine has historically been the main focus in cocaine addiction. Cocaine increases extracellular dopamine, norepinephrine, and serotonin in the brain through blocking plasma membrane monoamine transporters. Disulfiram (Antabuse), which inhibits DBH by copper chelation, has shown promise for the treatment of cocaine addiction in the clinic. Although the specificity, hepatotoxicity, and low tolerability of disulfiram limit its widespread and effective use, Nepicastat is a direct, competitive DBH inhibitor that does not chelate copper, is able to cross the blood-brain barrier, and is ~100 times more potent than disulfiram. A recent human laboratory study found that nepicastat was safe, tolerable and attenuated some positive subjective drug effects in a cocaine-dependent cohort. Also, recent experimental data on nepicastat show that treatment with nepicastat suppresses different reward-related behaviors in rats, including addiction to cocaine, chocolate. Nepicastat has mostly been studied as a possible treatment for congestive heart failure and appears to be well tolerated as such. As of 2012, clinical studies have been completed for the evaluation of nepicastat as a treatment for post-traumatic stress disorder (PTSD) and cocaine addiction. The drug is currently in phase 2 study. Nepicastat appears promising in pathways associated with reward addiction. Therefore, further research is needed.

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Keywords: nepicastat, dopamine, hydroxilaz

[Abstract:0710]

0710 - Behavioral addictions during child and adolescent psychiatry

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The introduction of behavioral addictions is a relatively new concept in psychiatry. The essential feature of behavioral addictions is the failure by the individual to resist impulses, drives, or temptations which if engaged excessively may have negative consequences [1]. Although many of the disorders subsumed under the term behavioral addictions have existed for decades, it was not until 2010 that the DSM workgroup, based on a growing body of literature, suggested adding the term behavioral addictions to their official classification of psychiatric diagnoses in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) [2]. Gambling, video gaming, and Internet use are typically included as everyday activities that could potentially become behavioral addictions [3]. To gain a better understanding of these addictions, research has identified the risk factors related to the development of pathological behaviors, as well as the protective factors that appear to prevent such behaviors [4]. Despite the fact that several behavioral addictions (e.g., compulsive shopping) seem to be typical of middle age or even older individuals during adulthood, the onset of many of these behaviors has been shown to occur during childhood, adolescence, and/or early adulthood. As a result, many of these behaviors have been examined from a lifespan perspective. There is little doubt that the behavioral addictions discussed (gambling disorders, gaming disorders, IA disorders, and smartphone problems) often develop during childhood and adolescence. Today's youth are not only "connected," but fear they will miss something important when not connected. The excessive use of "screen time" has led to major confrontations with parents over their devices. Awareness of these disorders is essential. Setting limits by parents often results in more conflict. Tracking the amount of screen time children use can provide parents with a better picture of the severity of the problem. Other behavioral disorders, such as gambling, are often more difficult to observe. Although, with time, some youth may outgrow these disorders as they become adults through a process of natural recovery or, in some cases, through psychological or psychiatric interventions (there is evidence that adult prevalence rates for many of these behavioral disorders are lower compared with adolescents), their consequences and harms may be severe. It is important to recognize that concomitant mental health, academic, social, familial, and interpersonal issues may have longstanding consequences. Although many of the treatment approaches have evolved from work in substance abuse, each disorder requires an understanding of the motivations underlying the behaviors to determine whether abstinence or controlled behavior may be feasible. Although abstinence from gambling and gaming behaviors might be possible, use of the Internet and smartphones is essential. Further understanding of the developmental trajectories and the risk and protective factors for each of these behavioral disorders will ultimately enable us to develop more effective prevention and treatment strategies.

Keywords: Behavioral Addictions, Gaming, Smartphone use, Internet addiction, Gambling, Child and Adolescent

[Abstract:0714]

0714 - Am i ready to be a specialist? what is waiting in mandatory service? potential problems and suggestions for practical solutionsMahmut Cem Tarakçıoğlu¹, Bahadır Turan²¹Department of Child and Adolescent Psychiatry, University of Health Sciences Kanuni Sultan Süleyman Education and Research Hospital, Istanbul, Turkey, ²Department of Child and Adolescent Psychiatry, Agri State Hospital, Agri, Turkey

Mandatory service is the obligation of physicians who graduate from medical school or complete their specialty after 05.07.2005 to work on a certain day under the auspices of the Ministry of Health with Law no 5371. In our country, most of the child and adolescent mental health professionals work under the roof of the Ministry of Health even after mandatory service as in other specialties. There are many problems, especially examination times and monitorization of the treatment invoice provided by the fund commission of hospitals. In this course, the issues experienced by child and adolescent psychiatrists in both metropolitan and peripheral cities, medical and technical difficulties and administrative & social problems will be discussed.

Keywords: Mandatory Service, Difficulties, CAMH Professionals

[Abstract:0715]

0715 - Dcs applications in child and adolescent psychiatry

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Transcranial Direct-Current Stimulation (tDCS) is a contemporary, portable, non invasive neuromodulatory technique that delivers low electric current to the scalp and affects cortical excitability via g-aminobutyric acid (GABA) -ergic and glutamatergic systems. It works with the principle of stimulating the brain with direct current at low intensity (fixed current between 1 and 2 mA is typically applied or 0.25 mA (peak current, oscillating at 0.75 Hz)) through two electrodes from the forehead. Although it has been extensively researched in adults, research protocols began applying brain stimulation techniques to children and adolescents in the early 1990s. Its application in neurodevelopmental populations, especially ADHD, has gained attention in recent years. Recent studies have shown promising results in alleviating different aspects of psychiatric symptoms involved in different psychopathologies such as major depressive disorder, autism spectrum disorders, ADHD, learning disorders, eating disorders and psychotic disorders. tDCS is usually tolerated well by children and adolescents. A mild tingling and itching sensation under the electrodes was the most common adverse effect and only reported by a minority of subjects. Other adverse effects include somnolence and localized irritation, and burning sensations. tDCS feasible, well-tolerated in children with language and neurodevelopmental disorders. Studies posited that tDCS can augment rehabilitative therapies in autistic youth, improve autism symptoms (social, behavioral, sensory/ cognitive, overall ATEC scores; CARS), reduce irritability/ aggression, social withdrawal, hyperactivity/ noncompliance, and total ABC scores. tDCS can be safely used in patients with comorbid epilepsy. ADHD is one of most studied area in pediatric population. Considering the fact that pediatric brains still have to go through various stages of neurodevelopment and have accelerated neuroplasticity compared to adults, tDCS could be considered a potential therapy for some pediatric disorders, particularly when there are no other safe viable alternatives. Researches reveal tDCS modulate neural networks. Polarity (anodal or cathodal) and targeted area plays an important role in outcomes. tDCS over the dorsolateral prefrontal cortex had a significant effect on inhibitory control (small-to-medium effect size). tDCS can help to improve memory consolidation, some measures of visual attention and inhibitory control, inattention symptoms, working memory speed. Studies in learning disorders and dyslexic population are far less. They usually target parietotemporal cortices for their role in phonological processing. In one study, after 20-minute sessions a week for 6 weeks (18 sessions) of left anodal/right cathodal tDCS set at 1mA over parieto-temporal regions, active group showed reduced low frequency word reading errors and non-word reading times. These positive effects were stable even one month after the end of treatment. In this course, we will discuss the theoretical and practical aspects of tDCS applications in child and adolescent psychiatry field, advantages of this new promising therapeutic neurostimulation method, as well as current literature review.

Keywords: tDCS, Neuromodulation, direct stimulation

[Abstract:0717]

0717 - Non-pharmacological treatment approaches of pathological laughing and crying

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Pathologic laughing and crying (PLC) denotes paroxysms of involuntary, suddenly and exaggeratedly uncontrollable without a stimulus a situation where laughing or crying attacks or both occur. PLC is a behavioral condition as a form of central nervous system disorders [1]. PLC is commonly associated with cerebrovascular diseases, amyotrophic lateral sclerosis and bulbar and pseudobulbar palsy related to multiple sclerosis. The feature of PLC is the continuity and spontaneous laughing and crying. Duration of PLC by patients and its severity cannot be controlled. There are three important features of PLC; they laugh and / or sudden loss of emotional control of crying, non-specific, often emotional development after a warning that will not cause laughter and crying and the feeling that exists is not related to the situation. It is possible to respond to a sad news by laughing, or to respond by crying to a simple waving gesture, or even to start laughing and crying while crying [2]. PLC is a disorder in the expression of emotions rather than an emotional disorder. The process underlying PLC has been linked with serotonergic system dysfunction and partial injury of the serotonergic raphe nucleus and associated hemisphere. Serotonin reuptake inhibitors are the mainstay of treatment [2,3]. However, PLC was unrelated to depression, did not ameliorate after pharmacologic treatment, and improved with cognitive-behavior treatment. PLC has long been recognized as a relatively discrete neuropsychiatric disorder, but it is almost certainly underrecognized in clinical settings. There has not been a general consensus concerning the treatment of PLC. Good psychiatric support and treatment has a positive effect on the quality of life of patients with PLC and their families. The patients of the origin of PLC may be helpful as a cognitive-behavior treatment, with resulting benefits to the entire rehabilitation program. Education and supportive therapy may help patients and families mitigate the social isolation and embarrassment that PLC episodes frequently produce [4-6]. In addition, non-pharmacological treatments such as music, dance therapy, animal assisted therapy, bibliotherapy can be used. However, the effects of such therapies have not been sufficiently investigated in patients with PLC. In this presentation, non-pharmacological treatment approaches in patients with PLC will be discussed in the presence of available literature findings.

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Keywords: cognitive-behavior treatment, laughing and crying, non-pharmacological treatment

[Abstract:0719]

0719 - Adhd assessment & management through the lifecycleDimitrios Adamis¹, Kieran Moore², John Hayden³, Fiona McNicholas⁴, Maria Romanos⁵, Margo Wrigley⁶

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Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common disorders treated in Child and Adolescent Mental Health Services in many countries, with estimated international childhood prevalence rates of 5%. However, recognition that ADHD persists into adulthood for approximately two-thirds of those diagnosed in childhood is relatively recent. Adult ADHD services are underdeveloped in many countries, and young adults transitioning from child services have been found to be particularly vulnerable to service gaps. This symposium reviews the epidemiology of ADHD worldwide and examines ADHD-specific service gaps in transitioning from child to adult MH services in many countries, using Ireland and UK as examples. It also reviews existing adult ADHD services, and presents on one innovative service model in Sligo. It presents an overview of a national clinical program established to manage ADHD. It presents the lived experience of reaching adulthood with ADHD from the perspective of young people, healthcare workers and clinicians, in a disadvantaged urban setting. The symposium hopes to stimulate collaborative efforts from child and adult service providers to develop and evaluate much needed adult ADHD services.

Keywords: ADHD, Assessment, Management

[Abstract:0723]

0723 - The power of participatory groupwork and evidence-based programmes with young clients in mental health services

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Individual assessment and subsequent individual treatment of clients is the usual norm in both Child and Adolescent Mental Health Services (CAMHS) and indeed in the Adult Mental Health Services (AMHS). However there is a growing international evidence base for the efficacy of Evidence Based Programmes to decrease the likelihood of long term mental health issues (Weisz et al 2005) The evidence regarding 'activity-based group work' is less clear (Bullock and Banningan 2011) but widely used by occupational therapists in mental health settings (Lloyd, King, & Bassett, 2002).

This symposium of 90 minutes will present three case studies by clinicians and researchers in Ireland who have used three distinct groupwork approaches with populations of children and young adults vulnerable to social communication and emotional regulation disorders. The first case study is of the use of 'Secret Agent Society' (SAS) intervention programme which is an innovative therapy program for children with social communication and emotional regulation disorders (Beaumont & Sofronoff, 2008). SAS teaches children how to cope with high levels of anger and anxiety and how to manage personal social challenges. SAS has been evaluated primarily in university clinics and schools in Australia, America and Canada (Beaumont, Pearson & Sofronoff, 2018) but no published evidence currently exists for the use of SAS within CAMHS. Results will be shared of an evaluation of this programme with 51 children aged 8-12 years with diagnoses of Attention Deficit Hyperactivity Disorder, Anxiety Disorder and/or Autism Spectrum Disorder in an Irish outpatient Child & Adolescent Mental Health Service (CAMHS). The second case study is the use of 'Participatory Action Research' (PAR) methodology to explore mental health and healthcare transition needs with a group of six young adult women with the genetic disorder 22q11.2 deletion syndrome. 22q11.2DS is a significant risk factor for social anxiety, ADHD, ASD and psychosis. PAR in public health research affirms that lived experience can influence practice, and partners with participants in action for change (Minkler & Wallerstein 2003). Observations regarding the value of a participatory, creative, group approach to identifying and progressing improvements in Irish paediatric services will be shared.

The third case study is the modification and use of the evidence based 'Program for the Education and Enrichment of Relational Skills (PEERS ®)' with a group of young women aged 18 – 35 with 22q11.2DS will then be discussed. While significant evidence supports the use of this programme with the population of teenagers on the Autistic Spectrum (Laguneson et al 2012; Hill et al 2017), no prior studies have been published on the modification of this programme to engage the 22q11.2DS population who as young adults with neurodevelopmental difficulties have a vulnerability to social difficulties, bullying and sexual exploitation. Qualitative and quantitative findings from the pilot of this programme with this population in Ireland will be shared.

The symposium will conclude with audience engagement in discussion regarding the value of group work evidence based programmes and group work approaches as an adjunct to treatment as usual in mental health settings. Audience observations of their clinical experiences and their recommendations of effective group work programmes/approaches in mental health settings are encouraged.

Keywords: Secret Agent Society, Participatory Action Research, Evidence Based Programmes

[Abstract:0725]

0725 - Simple, a standardised inclusive medical & psychiatry evaluation of eating disordersOnagh Lehman¹, Niamh Doody¹, Fiona Mcnicholas², Hakan Öğütü³*¹Child and Adolescent Mental Health Service, Lucena Rathgar, Dublin, Ireland, ²Child and Adolescent Psychiatry Department, University College of Dublin, Dublin, Ireland, ³Child and Adolescent Psychiatry Department, Ankara City Hospital, Ankara, Turkey*

Outpatient treatment is considered the most appropriate setting for the treatment of youth with an eating disorder (ED). Currently many clinicians have been trained to deliver an evidenced based approach, called Family Based Treatment, or FBT for short. Careful and skilled medical and psychiatric assessment is an essential component for both the specific treatment planning and the treatment setting. This is especially true in youth, given the high morbidity and mortality associated with ED, and the risk of youth becoming medically compromised very rapidly. The way in which EDs are assessed are issues of concern to all stakeholders, including those who use our services, practitioners, general public and policy makers.

For many youth with an eating disorder, assessments occur in a CAMHS setting by a member of the multidisciplinary team not medically trained. Oftentimes, a non-standardised approach is used, and incomplete referral information received, leading to a risk that salient medical or psychiatry information are not collected at baseline. This may contribute to clinical risk or treatment delays.

Standardized diagnostic assessments and questionnaires, frequently used in research, may optimise a MDT delivered treatment, and ensure that both medical and psychiatry aspects of risk are regularly considered. This symposium will present a pilot project proposed to make referral and assessment SIMPLE, by proposing a Standardised Inclusive Medical & Psychiatry evaluation of Eating disorders. It uses a bio-psycho-social assessment model, 'IF-ME' to provide a standard frame work for the assessment by FBT team members.

A systematic approach to assessment will gather information on factors known to be important in the onset, maintenance or risk and include (i) Individual factors, ie eating disorder and comorbid psychopathology (ii) Family factors including parenting stressors, family history of an eating disorders (iii) Medical assessment and (iv) Environmental factors, including cognitive vulnerabilities, academic and/or social pressure. This will be conducted by developing bespoke assessment material, identifying well validated relevant questionnaires and cognitive tasks, and including senior medical and psychiatric team membership. The pilot proposes to involve consultation with an adolescent medicine specialist with expertise in ED and the clinical oversight from a FBT dedicated consultant child psychiatrist.

Speakers will present on usual assessment, components of 'SIMPLE' proposed assessment, and medical and nutritional risks associated with eating disorders.

Keywords: SIMPLE, FBT, Eating Disorders

[Abstract:0729]

0729 - Lisdexamfetamine for the treatment of binge eating disorder

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Binge eating disorder (BED) is a psychiatric disorder characterized by excessive eating attacks where control over eating disappears. According to DSM V, recurring eating episodes must occur at least once a week for 3 months for this diagnosis.

Current evidence suggests that pathological overeating in binge eating disorder may be associated with a defect in the Dopamine (DA) and Noradrenaline (NA) systems. This increases reward sensitivity and impulsivity towards food intake. When people who had high body mass index (BMI) and binge eating disorder both were stimulated with food, DA levels increased in their putamen and caudate nuclei. This increase was significantly higher in BED and high BMI group when compared with only high BMI group. So DA increase was thought to be associated with the severity of binge eating.

In fMRI studies about binge eating disorder, dysfunctions in fronto-striatal areas which were related to reward and inhibition were shown. Impaired flexibility in reward-based decision making, reduced activation in regions implicated in goal directed action and evaluation of reward-based choice were found.

At the beginning of 2015, the US American Food and Drug Administration (FDA) approved lisdexamfetamine dimesylate (LDX) for the treatment of moderate or severe BED. Although psychotherapy is the first-line treatment, its use is recommended in cases that are not responsive to psychotherapy or in cases where psychotherapy cannot be applied.

It is a central nervous system stimulant which is metabolized for long-acting d-amphetamine formation in the blood. Increases levels of DA and NA by preventing their reuptake in presynaptic neurons. It is assumed that effective treatment with LDX will "normalise" activity and connectivity within these networks in the fronto-striatal regions relating to reward and inhibition in BED.

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Keywords: Binge eating disorder, Lisdexamfetamine, treatment

[Abstract:0732]

0732 - The roots of depressive problematic in children; evaluating suicide attempts from a developmental psychopathology perspective

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Depression in children and adolescents are thought to result from complex interactions between biological fragility and environmental factors. In the psychoanalytic literature, various opinions about the infrastructure of the depressive problem have been reported. The observations of Freud and Abraham reveals the importance of object loss and oral period in the formation of depression. Freud suggests that depression is associated with a loss of real or unconscious object and regression to the oral period. Winnicott states the mother's basic maternal functions protect the baby from primitive concerns or unimaginable pain in the early period of life. The concept of "holding" refers to the mother's capacity to identify with her baby, to protect and support him in the face of worrying experiences. The mother's inability to hold the baby in her mind leads to symptoms such as not being able to withstand loss, deficiency, separation and silence. The absence that cannot be tolerated here is a mental loss which is the loss of the maternity functions mentioned by Winnicott. Internalized, parental images should be steady, consistent, indestructible, safe objects. Only in this way the child can withstand a deficiency or loss. Inability to withstand deficiency brings depression with it. M. Klein discusses the relationship between aggression and depression in the background of depressive problematic. According to Klein, depressive position is part of normal development. In the depressed position, the ambivalence, which occurs with the discovery that the good object is the same as the bad object, the baby is exposed to feelings of guilt, irreversible loss and mourning about his aggression destroying his mother. Overcoming this depressive anxiety depends on the mother's resistance to the aggression of the child and not being destroyed by this aggression. When evaluated in terms of suicide attempts, according to Freud, in suicide attempts individual is identified with the object that has been lost or disappointing and that the ego has become the target of vengeful sadistic requests. In general, these patients suffer from the predominance of a superego originating from aggressively invested internalized object relations. In the first five years of life, when aggression predominates in the early period due to severe family pathology, related genetic, structural or environmental factors, the aggressive layer of superego development becomes so strong that it is filled with projection of the early world of persecution figures. With this world of persecution, a world of predominantly paranoid object relations occurs and eventually causes paranoid transmissions, aggression towards others and self. Hate can manifest itself with the desire to destroy himself and the object to eliminate all suffering. Another feature of the internalization of early object relations dominated by hate is the need to escape the inexorable intense pain and hate experience. Intense mental pain directly induces anger that creates a self-directed destruction that allows escape from this painful condition to eliminate the source of pain.

Keywords: Depression, Suicide Attempts, Psychoanalytical Approach

[Abstract:0733]

0733 - Psychosocial risk groups: offsprings of parents with mental illnessTuğba Didem Kuşcu¹, Funda Gümüştaş²*¹Department of Child and Adolescent Psychiatry, Erenkoy Research and Training Hospital for Psychiatric and Neurological Disorders, Istanbul, Turkey, ²Department of Child and Adolescent Psychiatry, Marmara University Pendik Training and Research Hospital, Istanbul, Turkey*

Parental mental illness can significantly affect offsprings' lives through both direct and indirect mechanisms. Mental disorder in the parent negatively affects the child's physical, social and emotional development. Trying to hide the illness from the child or not attaching importance to the illness may worsen this situation. In this case, children cannot make sense of the change in the behavior of the parent with mental illness. In addition, children with a mentally ill parent are at higher risk of growing with a single parent or entering institutional care. When one or both of the parents get sick, the family's routines are disrupted and communication problems occur. The child may have difficulty in reaching the parent emotionally and building a relationship. Severe mental illness in the parent can lead to impaired parenting skills, inability to regulate interpersonal relationships, isolation, emotional dysregulation, and lack of care and warmth. The parent with mental illness cannot fulfill his own role with impaired parenting skills, and even can move to a care receiver position rather than a caregiver for the child. The presence of psychopathology in the mother in the first year of life has been linked to attachment problems in the offspring. Economic problems can occur, especially when the father is sick. A parent with mental disorder is also likely to neglect and abuse his/her child.

Children who cannot share their problems at home may be distanced from their friends, and these children may be stigmatized and excluded due to the illness of their parents. These children experience intense negative emotions such as fear, guilt, anger, sadness, and their self-esteem is low. With all these problems, their academic success may deteriorate. They are more likely to use negative coping methods, including alcohol and substance abuse. The crime rates of these children are also higher when compared to the children with healthy parents. In contrast to all these, development of a sense of responsibility, of ability to live independently, and of skills of empathy and tolerance can be observed in the child as a positive situation.

Offsprings of parents with mental illness are more at risk of experiencing cognitive, emotional and behavioral difficulties than children with mentally healthy parents, and all these difficulties may lead to a mental disorder in the future. The increased risk of having other mental disorders in addition to the mental disorder in the parent shows that both genetic and psychosocial factors can cause the disease in children. It is important to be aware of psychosocial factors, to understand their mechanisms of action, and to develop and implement necessary prevention and intervention programs accordingly, for the healthy development of these children and protection of them from mental disorders.

Keywords: child, adolescent, parental mental illness, adverse outcomes, psychosocial, risk factor

[Abstract:0738]

0738 - Suicidality in adjustment disorder

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Adjustment disorders that develop following psychosocial stressors are mental health disorders that manifest with emotional and behavioural symptoms. Rather than violent traumatic events, stressors which cause mood disorder are generally ordinary events such as separation from a loved one, a change in environment, or economic difficulties. In individuals with a predisposition to the disease in the period before onset, the disorder is a clinical entity which is usually triggered following a change in living conditions (military service, emigration, etc). Behavioural pathologies with symptoms of anxiety and depression are generally seen in this clinical table, and individuals with this diagnosis have weak coping mechanisms for these stressors.

Adjustment disorder, which is frequently seen in clinical practice, has been reported at the rates of 7%-35% in the general population (1). It is one of the most common psychiatric diagnoses made in patients admitted to hospital for medical or surgical reasons. The frequency in oncology and hematology clinics has been reported to be 15.4% and in palliative care units, 19.4%. There are six clinical subtypes of adjustment disorder; depressive mood, anxiety, mixed anxiety and depressive mood, behavioural disorder, mixed emotional and behavioural disorder, and undefined

type. In patients diagnosed with adjustment disorder, depressive symptoms are predominant in a general sense. In studies on this subject, depressive symptoms have been reported to be seen in 63% of adolescents and 87% of adults.

It has been reported that 94% of individuals who commit suicide or attempt suicide have at least one mental illness. In those who commit suicide, the mental diseases determined are primarily depressive disorders at the rate of 35%-80%, followed by schizophrenia in 10% and dementia or delirium in 5%. It has also been reported that 25% of suicide cases are alcohol-dependent. Affective disorders are the psychiatric diseases with the highest risk of suicide. The rate of suicide in depressive episodes is 30-fold higher than in the normal population. Dysthymic disorders and adjustment disorders are among the most important reasons for suicide.

Patients diagnosed with adjustment disorder may present with varying complaints. Previous studies have shown that a significant proportion of patients with adjustment disorder have attempted suicide. In a study conducted to determine the symptom structure of this disorder, one of the most frequently observed symptoms was the thought of suicide. It was reported that 25% of the patients had attempted suicide or had thoughts of suicide (2). Another study determined that 60% of patients with adjustment disorder had a history of attempted suicide (3). In some psychology autopsy studies it has been claimed that one in five of adolescent suicide cases could have adjustment disorder. As mental healthcare workers, our targets should be to examine suicidal behaviours and take preventative steps. Therefore, determination of these behaviours and identification of risk groups are important. Determining these risk groups will enable the implementation of appropriate preventative programs.

Keywords: adjustment disorder, suicide, stress

[Abstract:0740]

0740 - Play therapy techniques for traumatic psychopathologies in children and adolescents

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If trauma experiences was too much, too overwhelming, too scary and there were too many incidents, they does not get processed properly in children and adults. Traumatic memory stays fresh, creates a "sore spot", present day triggers hit the "sore spot". The children and adolescents flash back to the old memory and use a quick relief behavior: explode, meltdowns, temper tantrums, violence, anger, hurt themselves, etc. They can't calm down and they can't control themselves. Recognizing post-traumatic play is important, it includes repetition, urgency, intensity that emotional content feels "real" vs. playful. Trauma informed play therapy assessment needs trauma "on the map", conveys hope, needs to be manageable and to empower the child. Phases of trauma in play therapy are creating physical and emotional safetiness and emotional regulation and managing the body. Providing opportunities for digesting the material "behind the wall" in a gradual way to reduce the "sore spot" reaction, correct false beliefs and find meaning. Child-centered environment for post-traumatic play needed, spending time with children in the play room in a non-directive way allows the emergence of play themes which can then be recognized, supported, contained and transformed. Later in play therapy sessions, creating a metaphorical story to speak to the child's inner world in a playful way is helpful.

Keywords: trauma, play therapy, child

[Abstract:0743]

0743 - Techniques used in emdr therapy for traumatic pathologies in children and adolescents

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Eye movement desensitization and reprocessing (EMDR) was developed by Shapiro (1989). EMDR is an integrative evidence-based therapy, that for over twenty years, has been used to treat disorders relating to traumatic stress and distressing life experiences (Shapiro 1995, 2001). EMDR consists of eight phases of treatment: History, Preparation, Assessment, Desensitization, Installation, Body Scan, Closure and Reevaluation. EMDR therapy is founded on Shapiro's Adaptive Information Processing model (AIP) (Shapiro, 1995 and second edition 2001). New experiences and information are normally processed to an adaptive state. Information is stored in memory networks containing related thoughts, emotions and sensations.

AIP model proposes that present problems are based on earlier experiences that have been dysfunctionally registered in the brain and need to be reprocessed (Shapiro, 2012). The primary usage of EMDR therapy was within the adult population. They were military personnel diagnosed with post-traumatic stress disorder. With overwhelming trauma the physiological response interferes with adaptive processing. The traumatic memory does not get processed, it becomes frozen. The traumatic memory is stored as it was perceived at the time, in pictures, emotions and sensations and gives rise to dysfunctional reactions. Individuals who suffered traumatisation can develop a whole series of problems including nightmares, flashbacks, new fears and avoidance strategies. The information processing theory postulates that this blocked information processing is facilitated by alternating bilateral stimulation (ABLS) using eye movements, sounds or taps.

The content and length of the EMDR sessions reduces according to developmental levels. EMDR with children follows the same eight phases but it differs within the content of each phase to match the right developmental level of the child.

Keywords: EMDR, Trauma, Child Psychiatry, Psychotherapy

[Abstract:0745]

0745 - Catatonia

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Catatonia is a neuropsychiatric syndrome in which psychomotor signs and symptoms cause movement and behavior abnormalities. It was first described in 1874 by Kalhbaum. Three subtypes of catatonia have been described: stuporous, excited and malignant. Stuporous catatonia is characterised by stupor, mutism or waxy flexibility. Excited catatonia is characterised by bizarre, non-goal directed hyperactivity and impulsiveness. Rigidity, fluctuation in consciousness and autonomic instability accompany malignant catatonia. The most emphasized hypothesis in neurotransmitter studies is decreased GABA-A receptor activity. It has been reported that NMDA hyperactivity inhibits GABA-A function, NMDA antagonists indirectly regulate GABA-A activity in the frontal lobes. The role of dopamine in catatonia is rather complicated, but the general opinion is that the hypodopaminergic state in the subcortical area and thalamocortical pathways can cause catatonia. The diagnosis of catatonia relies on the recognition of its sometimes unusual symptoms. Historically, up to 40 signs of catatonia were recognized, and most are now included in the published scales for detecting and rating the severity of catatonia. The Bush-Francis Catatonia Rating Scale (BFCRS) is widely used in both clinical and research settings. BFCRS consists of 23 items and the first 14 items in this scale are used for screening. Cases are defined by the presence of 2 or more of the first 14 signs. DSM-5 criteria require 3 or more from a similar list of 12 common catatonic signs. Once the diagnosis of catatonia is made, a definable etiology must be sought. Catatonia may arise from multiple etiologies. The prevalence of catatonia among psychiatric patients ranges from 7.6% to 38%. In addition to mood disorders and schizophrenia-spectrum disorders, catatonia can be seen in up to 20% of patients with autism-spectrum disorders. Up to 50% of cases of catatonia may be due to a host of neuromedical syndromes. These include paraneoplastic and limbic encephalitis (especially anti-NMDA receptor antibody encephalitis), ictal and post-ictal states and lupus. Substances associated with catatonia include dopamine-blocking agents, tacrolimus and disulfiram among others. Catatonia has several mimics which must be ruled out before making a diagnosis. Locked-in syndrome, linked to pontine lesions, can be distinguished from catatonia because patients will generally attempt to communicate with their eyes. Stiff person syndrome is an autoimmune disorder that may appear like catatonic posturing. But these patients speak and complain about their pain. Some patients suspected of being in a catatonic state may have an extrapyramidal parkinsonism. These can have a distinctive tremor but are not negativistic and lack bizarre catatonic psychomotor symptoms. Nonconvulsive status epilepticus can also produce a catatonic-like state; electroencephalography is essential for accurate diagnosis. Hypoactive delirium may overlap or coexist with catatonia. It is extremely important to confirm a delirious patient is not also suffering from a catatonic episode. Because neuroleptics can worsen simple catatonia and cause malignant catatonia. Catatonia can lead to medical complications that result in significant morbidity and mortality. It is important to make the diagnosis as early as possible for an appropriate medical treatment. Clinicians should be aware of the fatal outcome of the disease. Clinicians need be familiar with catatonia, its underlying medical conditions, as well as its idiopathic presentation.

Keywords: Catatonia, Clinical features, Differential diagnosis

[Abstract:0749]

0749 - The main principles of psychiatric drug use for children and adolescents with epilepsy and comorbid psychiatric disorders

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The definition of epileptic disorders treatment is not restricted to a seizure-free course but also includes the management of comorbid medical, neurological, psychiatric and cognitive comorbidities. Epileptic disorders in children and adolescents bring psychosocial burdens including cognitive impairments, academic underachievement, social skills problems, and behavioral and psychiatric disorders [1]. In large population-based cohort studies 26-36% of children and adolescents with epilepsy have a psychiatric condition, and among children with more complicated epilepsy the rate jumps to 56-65% [1, 2]. Much higher rates, ranging from 60-75%, of psychiatric disorders have been reported in clinical samples and only a third of these individuals are receiving treatment for their psychiatric conditions [3, 4]. The most commonly reported psychiatric comorbidities in children and adolescents with epilepsy are attention deficit hyperactivity disorder (ADHD), depression and anxiety [2]. Psychiatric comorbidities have a negative impact on quality of life and may even be associated with antiepileptic treatment non-compliance. Besides, psychiatric comorbidities have a complex reciprocal relationship with epilepsy. When treating psychiatric comorbidities in epileptic disorders the first step to keep in mind is the psychiatric adverse effects of antiepileptic medication and the possible relation of these medications with the psychiatric condition. If the psychiatric condition is not clinically related to the antiepileptic medication then scientific systematic data suggests that psychotropic drugs are safe and useful for treating psychiatric comorbidity in epilepsy [5]. Even so, worsening of seizures with the initiation of psychotropic drugs and drug-drug interactions remain as a particular concern for clinicians.

Keywords: adolescents, children, epilepsy, psychiatric comorbidity, treatment

[Abstract:0751]

0751 - Ganaxolone and brexanolone for the treatment of patients with postpartum depression

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Postpartum depression (PPD) is a potentially devastating condition that affects women and creates an important personal and economic burden for affected individuals and their families. PPD is included in DSM-5, as a major depressive episode “with peripartum onset if onset of mood symptoms occurs during pregnancy or within 4 weeks following delivery”. PPD is the most common complication of childbirth. In the United States, approximately 14.5% of women will experience a new episode of depression during pregnancy or in the initial months after delivery. A similarly high prevalence of PPD has been noted worldwide, yet rates of diagnosis are low, and nearly half of diagnosed cases go untreated. PPD is identified by tearfulness, emotional lability, irritability, disinterest in life events, fatigue, sense of blame, feelings of inability, and inadequacy to take care of the child. Treatments such as psychotherapies, serotonin reuptake inhibitors, noradrenaline reuptake inhibitors, tricyclic antidepressants and electroconvulsive therapy are used in the treatment of PPD. However, none of these treatments are specific to PPD. Although the pathophysiology underlying PPD has not been fully clarified, changes in the hypothalamic-pituitary-adrenal axis, changes in the perinatal hormonal fluctuations (such as allopregnanolone; endogenous progesterone metabolite, and a strong GABAA positive allosteric modulator), synaptic and extrasynaptic γ -aminobutyric acid receptors and changes in GABA signaling are blamed in pathophysiology. Brexanolone (Zulresso™) is a small molecule, neuroactive steroid GABAA receptor positive allosteric modulator that was developed by Sage Therapeutics under license to the University of California for the treatment of PPD. Brexanolone is the first approved treatment specifically for PPD treatment in the USA. It was approved on March 19, 2019. The drug consists of a mixture of synthetic allopregnanolone and sulfobutylether-beta-cyclodextrin (a solubilizing agent). Its mechanism of action in the treatment of PPD in adults is thought to be related to its positive allosteric modulation of GABAA receptors. Brexanolone exhibits dose-proportional pharmacokinetics across a dosage range of 30 to 270 $\mu\text{g}/\text{kg}/\text{h}$. It binds to plasma proteins by 99%. Brexanolone has a terminal elimination half-life of $\approx 9\text{h}$ and a total plasma clearance of 1 L/h/kg. It is not metabolised by CYP enzymes. It is metabolised by keto reduction, glucuronidation and sulfation. Brexanolone is transferred to breastmilk; however, the relative infant dose is low. The pharmacokinetics of brexanolone are not impacted to any clinically relevant extent by renal or hepatic impairment. It is not used in the endstage renal disease. Brexanolone injection is a sterile solution only for intravenous use. A 60-hour continuous infusion of brexanolone at a dose of up to 60 and 90 $\mu\text{g}/\text{kg}$ per hour was used in phase 2 and 3 trial. Intravenous brexanolone was generally well tolerated in clinical trials. Headaches, dizziness, somnolence are common side effects. Ganaxolone is a synthetic analog of allopregnanolone and

a potent positive allosteric modulator of GABAA-receptors. Only phase 2 clinical trials have been conducted and have not yet been approved for PPD. Ganaxolone intravenous in severe PPD demonstrates preliminary evidence of rapid and durable antidepressant action with a favorable safety profile.

Keywords: Postpartum depression, depression, Brexanolone, Ganaxolone, treatment

[Abstract:0753]

0753 - Group emdr protocol in disaster and war related traumatic events

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Group-EMDR apply in 8 steps for children Stage 1, Client history: At this stage, the therapist educate the clients on trauma, posttraumatic stress disorder and their effects on people. Stage 2, Preparatory Stage: At this stage, a warm-up technique is used to attract the attention of the group members and increase within-group harmony. They are then asked to imitate "happy / sad / scary / surprised / angry" expressions, and to think about some of the events they had experienced in the past, in order to make it easier for them to recognize their own feelings. Then abdominal technique is taught. And then the team leader teach the clients the Butterfly Hug technique. Then the team leader say, "Close your eyes. Then move your hands diagonally to your shoulders and tap your shoulders like a butterfly flapping wings. Breathe deeply and slowly (abdominal breathing) while trying to recognize all the changes in your mind and body, such as thoughts, images, sounds, smells, emotions, and sensations." After these steps, the team leader say, "Now, please close your eyes and imagine you are in a safe or calm place, then draw the Safe/Calm Place on the paper in front of you. Now focus on what you see smell and hear in your Safe/Calm Place and slowly do the Butterfly Hug 6-8 times." to complete Safe/Calm Place installation. Stage 3, Evaluation: The clients are asked to divide a sheet of paper by four. Each compartment is named with the letters A, B, C, D. They are asked to think about the worst part of the event they experienced in a similar way to the standard EMDR protocol. Then they are asked to draw the worst part of the incident on section A (square A) on the paper. They are asked to look at the paper and score their discomfort between 0 to 10 (SUDs). Stage 4, Desensitization: At this stage, the clients are asked to do Butterfly Hug for about 60 seconds, while looking at what they drew. After the Butterfly Hug, they are told to "Try to notice how you feel and draw what you want to draw on section B." Then, they are asked to re-score their discomfort when looking their drawings (SUDs). Then they were asked to drop their pens and do Butterfly Hugs for about 60 seconds. The same process is repeated for sections C and D. This stage is completed after the last time SUDs were taken. Stage 5, Future Vision: At this stage, the clients is told to draw or write whatever they want about how they wanted to see themselves in the future. After the drawing is completed it was consolidated via the Butterfly Hug. Stage 6 Body scan: The clients is told to "Think about the incident and scan your body thoroughly. If you have any discomfort, do the Butterfly Hug." Stage 7, Closing: Close your eyes, remember your safe location and do Butterfly Hugs for about 60 seconds. Then take three deep breaths and open your eyes. Stage 8, Reevaluation and Follow-Up: The therapist should check current psychological status of clients. If the therapist thinks it is necessary, it guides for additional interventions.

Keywords: Group EMDR, Natural disaster, War, PTSD

[Abstract:0755]

0755 - How are experiences inherited?Burak Doğangün¹, Koray Karabekiroğlu², Hülya Bingöl¹, Zehra Koyuncu¹¹*Istanbul University-Cerrahpasa, Cerrahpaşa Medical School, Child and Adolescent Psychiatry Department*, ²*Ondokuz Mayıs University, Medical School, Child and Adolescent Psychiatry*

Genetic, epigenetic, and environmental risk factors have an effect on each other and cause ADHD. Epigenetic mechanisms such as chromatin modification, DNA methylation, and non-coding mRNAs regulate the functionality of genes. This regulation occurs in response to different environmental conditions and can result in alterations in function and expression of the genes. Epigenetic factors have role in the etiology of a range of diseases, including behavioural and psychiatric conditions.

Most commonly reported environmental factors that lead to ADHD can be investigated by discriminating to three category such as prenatal, perinatal and postnatal factors.

Prenatal factors are have a large proportion among environmental factors in the etiology of ADHD, and can be listed as experience of maternal stress, maternal alcohol consumption, and prenatal exposure to tobacco by maternal smoking during the pregnancy, prenatal ischemia-hypoxia (e.g., preeclampsia). Exposure to ischemia-hypoxia leads to changes in metabolic demand, angiogenesis, inflammatory/immune response, neuroprotective/neurotoxic systems, oxidative stress, and blood flow redistribution. Importantly, all of these processes are also implicated in the etiology of ADHD.

Maternal use of paracetamol especially at second or third trimester and antidepressant usage was found to be related with ADHD like behaviour or ADHD. Maternal nutrition state and attitudes are also important prenatal factors. Maternal high fat and sugar containing unhealthy diet during pregnancy, gestational diabetes, even mother's prepregnancy BMI have an effect on the child's ADHD diagnosis. Unhealthy diet influence methylation of the insulin-like growth factor 2 gene (IGF2). IGF2 is a major modulator of placental and fetal growth and also plays an integral role in brain development after birth, and it is considered related with ADHD. In a study that investigate some factors that have effect on DRD4 methylation, there was a significant interaction effect of the methylation of CpG7 and prenatal maternal stress on changes in omission errors of the CPT following treatment.

Perinatal ischemia-hypoxia (e.g., birth asphyxia), low birth weight is an indicator of prenatal hypoxia or malnutrition, prematurity are found to be related with the ADHD diagnosis at the later ages. Perinatal mercury exposure has also been suggested as a risk factor for ADHD, and a recent meta-analysis showed a significant association between exposure and ADHD. However, the same study found that exposure of embryos or young children to vaccines containing thimerosal (a mercury-containing organic compound) were not associated with ADHD. Because of such conflicting findings, and lack of valid scientific evidence, there are still ongoing discussions about the relationship between such environmental toxins and ADHD.

The effect of nutritional status on ADHD development continues in the postnatal period. In a study that investigate the molecular signatures after childhood malnutrition, it is reported that more than 100 genomic loci show DNA methylation changes after early childhood malnutrition. Nutrition-sensitive DNA methylation sites are found to be correlated with attention and cognition. Heavy metals and pollutants are another environmental factors that are thought to be responsible for existence of ADHD, it is reported that lead and polychlorinated biphenyls have an effect on cognitive functions and ADHD like behaviours.

Keywords: ADHD, etiology, epigenetics, environmental factors.

[Abstract:0756]

0756 - Transition from childhood to adulthood: a psychodynamic approachHatice Kaya¹¹*Department of Psychiatry, Sultanbeyli State Hospital, Istanbul, Turkey*

What is adolescence, when does it start, when does it end? Or is there a definite finish line? Although the early cases of psychoanalysis are at young ages, (The most famous case; Anna O. was 21 years old 1) specific literature on the psychodynamics of adolescence is relatively limited. There are potential causes of this situation; first of all; sometimes it is hard to specify if there is an adult or adolescent in front of us, because of the vague nature of the stage. The definition of the period can differ as the result of cultural, scientific and even political changes. Second, analysing an adolescent is difficult, because the therapist of an adolescent may find themselves pressed by the roles of a therapist, a pedagogue or even a parent. Moreover, adolescent's effort for individuation could appear at the relationship between therapist and adolescent, and it can

be difficult to manage. It is also hard to say which “symptom” is a part of “normal” process of adolescence, or a sign of a mental disorder, because sometimes an adolescent needs to push hard for separation, in particular if the parents are not eager to separate.

Adolescence is a period that young individual becomes aware of possessing a body and psyche which has the capacity to produce and reproduce. It is important to see the link between creativity and separation, mourning and depression. Adolescents ought to leave and overcome difficulties of outside life. Fulfilling the emptiness of the things they leave behind, may be the foremost difficulty. So this separation, mourning and adaptation process also covers loss of attitudes and relationships, as well as aggression and guilt, it can be considered as a compromise for individuation. 2 The adolescent has a crucial need to be able to understand themselves, during this period where their body, feelings, mind-set and social relationships are in a constant change. Thus, while demanding understanding from the environment, the adolescent struggles to give meaning to those critical changes, which cause great anxiety and confusion. In this period, adolescents may return to their body as an object of vengeance, not only to punish themselves but also their parents.3

As a result, the therapist of an adolescent should be aware of the potential difficulties of walking with a person who is struggling with plenty of identity, individuation, impulse control, and adaptation problems while mourning for their childhood in a comfortable orbit, without taking the role of a life guru, while accompanying the birth of a creative and independent individual.

Keywords: Adolescence, young adult, psychodynamic psychotherapy, individuation, separation

[Abstract:0767]

0767 - Psychiatric aspect of pathological laughing and crying

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Pseudobulbar affect (PBA) is a socially debilitating condition that primarily affects people with neurologic diseases, such as Alzheimer's disease or multiple sclerosis. This underrecognized and underdiagnosed disorder of emotional expression is characterized by frequent, exaggerated and uncontrollable episodes of crying and/or laughing that are disproportionate to the patient's internal emotional state or social context. PBA has been labeled emotional lability, emotional incontinence, involuntary emotional expression disorder, emotional dysregulation, emotionalism, or pathological laughing and crying and may also be elicited without a stimulus(1).

The pathways related to PBA are multifaceted and thought to result from disruptions of neural networks that control the generation and regulation of motor output of emotions. Brain lesions located mostly in the frontal lobes and descending pathways to the brainstem, basis pontis and cerebellum, which encompass systems thought to be involved in motor control of emotional expression, are linked to PBA. PBA is often misdiagnosed as a psychiatric disorder, such as depression or underrecognized in patients with conditions whose symptoms mimic those of PBA. Unlike patients diagnosed with mood disorders, those with PBA have unsustained, explosive and irregular emotional responses. Patients with PBA are aware of social norms and the inappropriateness of their responses. Thus, they are embarrassed by the inability to control these involuntary outbursts. This may lead to subsequent restriction of social interactions and a lower quality of life. Subsequently, relationships may suffer, resulting in loss of those relationships, including divorce and patients may become homebound. Patients with PBA are challenged by the underlying disorder as well as the accompanying emotional changes, thus often resulting in even more anxiety, depression and other comorbid psychiatric illness and impairment compared with their non-PBA peers in the community(2).

Poock defined four criteria for PBA in 1969, which were modified by Cummings in 2006 and are the current diagnostic criteria for PBA. Two tools are commonly used for screening for PBA: the Center for Neurologic Study-Lability Scale and the Pathologic Laughter and Crying Scale(3). Treatment of PBA has traditionally centered on antidepressant therapies, but newer therapeutic options include combination agents employing multiple modalities(4). Therapy should include patient counseling to reassure patients and families that PBA is not the fault of the individual. Counseling should also emphasize safety precautions to minimize adverse events and maximize appropriate adherence to the selected therapies. Increasing awareness and accurate diagnosis of PBA may help improve treatment and reduce the use of inappropriate medications.

Keywords: pseudobulbar affect, laughing, crying, psychiatric aspect

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[Abstract:0771]

0771 - Psychodynamic approach to trauma therapy

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Folk wisdom is filled with ghosts who refuse to rest in their graves until their stories are told. Remembering and telling the truth about terrible events are prerequisites both for the restoration of the social order and for the healing of individual victims. The conflict between the will to deny horrible events and the will to proclaim them aloud is the central dialectic of psychological trauma. When the truth is finally recognized, survivors can begin their recovery. But far too often secrecy prevails, and the story of the traumatic event surfaces not as a verbal narrative but as a symptom. Denial, repression, and dissociation operate on a social as well as an individual level. The study of psychological trauma has an “underground” history. Like traumatized people, we have been cut off from the knowledge of our past. Like traumatized people, we need to understand the past in order to reclaim the present and the future. Therefore, an understanding of psychological trauma begins with rediscovering history. Because the traumatic syndromes have basic features in common, the recovery process also follows a common pathway. The fundamental stages of recovery are establishing safety, reconstructing the trauma story, and restoring the connection between survivors and their community.¹

Freud had several theories about trauma as it related to the ego, notably “the original traumatic state” he called “birth trauma.” In one characterization, he defined trauma as “an experience which within a short period of time presents the mind with an increase of stimulus too powerful to be dealt with or worked off in the normal way, and this must result in permanent disturbances of the manner in which the energy operates”. Cognitive-behavioral and psychodynamic therapies as well as psychopharmacological interventions all play a useful role in the treatment of trauma.²

Psychodynamic assessment and treatment can be uniquely helpful in clarifying the meaning and influence of traumatic events, as well as the relationship of these events to presenting symptoms. For those patients who have become symptomatic following recent events, who have functioned at a much higher level prior to these events, and whose trauma is no longer ongoing, psychodynamic psychotherapy is often extremely effective and may be relatively short term. Patients who have become acutely symptomatic following specific events, who have some capacity for insight, and whose vulnerabilities are taken into account in treatment planning may respond quite rapidly to psychodynamic psychotherapy. By addressing the intrapsychic components to trauma, often missed in other therapies, psychodynamic treatment has the potential for clarifying and resolving the multiple and confusing symptoms that often characterize traumatized patients.³

Keywords: trauma, psychodynamic, psychotherapy

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[Abstract:0774]

0774 - The concept of high-risk in psychiatry

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The concepts of so called risk groups and, consequently, preventive measures are far well-known in medicine. There are several examples of preventive initiatives constituted by other medical specialties. World Health Organization have proposed three distinctive preventive approaches namely; universal, selective, and indicated prevention. In general terms, when we talk about concept of high-risk in psychiatry, we may be referring to either one of the four categories: The risk of development of a disease, the risk of self-harming behavior, the risk of violence or harming others, and the risk of exploitation. The risk itself is not a static state and the prediction cannot be 100%, especially for the long run. Therefore regular follow-ups and reassessments are needed. Also, identification of the at-risk population and introducing appropriate social and clinical management strategies are of utmost relevance. As child and adolescent psychiatrists we have to pay attention to and deal with these previously mentioned high-risk groups in our clinical practice. In this presentation, the concept of high-risk in psychiatry will be evaluated through a developmental trajectory.

Keywords: High-Risk, Psychiatry, Youth

[Abstract:0776]

0776 - Comparative efficacy of antidepressant drugs and evidence based psychotherapies for adult major depression: current results of reviews and network meta-analyses

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Major depressive disorder is one of the most common, burdensome, and costly psychiatric disorders worldwide in adults. Pharmacological and non-pharmacological treatments are available; however, because of inadequate resources, antidepressants are used more frequently than psychological interventions. In routine practice, clinicians have a wide choice of individual drugs and they need good evidence to make the best choice for each individual patient. Network meta-analyses of existing datasets make it possible to the wider picture of the evidence base, and to understand the relative merits of the multiple interventions. In a systematic review and network analysis, Cipriani et al. have compared the efficacy and acceptability of 21 antidepressant drugs for the acute treatment of adults with major depressive disorder. In terms of efficacy, all antidepressants were more effective than placebo. For acceptability, only agomelatine and fluoxetine were associated with fewer dropouts than placebo, whereas clomipramine was worse than placebo. In head-to-head studies, agomelatine, amitriptyline, escitalopram, mirtazapine, paroxetine, venlafaxine, and vortioxetine were more effective than other antidepressants, whereas fluoxetine, fluvoxamine, reboxetine, and trazodone were the least efficacious drugs. For acceptability, agomelatine, citalopram, escitalopram, fluoxetine, sertraline, and vortioxetine were more tolerable than other antidepressants, whereas amitriptyline, clomipramine, duloxetine, fluvoxamine, reboxetine, trazodone, and venlafaxine had the highest dropout rates.¹

Several different types of psychotherapies have been found to be effective in the treatment of adult depression. Although many types of psychotherapy for adult depression have been examined in randomized trials, only a relatively small number of generic types of psychotherapy have been examined in meta-analyses. Meta-analyses of trials directly comparing these therapies with each other, typically indicate that there are no major differences between the effects of these therapies. In a meta-analytic review, Cuijpers et al. have examined the effects of 15 different types of psychotherapy using 385 comparisons between a therapy and a control condition: Acceptance and commitment therapy (ACT), mindfulness-based cognitive behavior therapy (CBT), guided self-help using a self-help book from David Burns, Beck's CBT, the "Coping with Depression" course, two subtypes of behavioral activation, extended and brief problem-solving therapy, self-examination therapy, brief psychodynamic therapy, non-directive counseling, full and brief interpersonal psychotherapy, and life review therapy. As the result, they have concluded that the 15 types of therapy that were examined in this meta-analysis may be effective in the treatment of depression, but the evidence was not conclusive because of high levels of heterogeneity, publication bias, and the risk of bias in the majority of studies.² Cuijpers et al. have also conducted a network meta-analysis in order to compare the effects of psychotherapies, pharmacotherapies and their combination in the treatment of adult depression. As the result, they have founded that combined treatment was more effective than psychotherapy alone and pharmacotherapy alone in achieving response at the end of treatment. No significant difference was found between

psychotherapy alone and pharmacotherapy alone. Combined treatment and psychotherapy alone were more acceptable than pharmacotherapy. The combination of psychotherapy and pharmacotherapy seems to be the best choice for patients with moderate depression.³

Keywords: comparative efficacy, antidepressants, psychotherapies, major depression

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[Abstract:0777]

0777 - TNS, Promising Intervention for ADHD?

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In addition to standard psychosocial interventions such as parent management training and academic accommodations, there has been increasing interest in other non-medication approaches to ADHD, including noninvasive brain stimulation methods such as transcranial direct stimulation and transcranial magnetic stimulation.

Trigeminal Nerve Stimulation (TNS) works similar to Vagal Nerve Stimulation (VNS) but it is a non-invasive, minimal risk neuromodulation method approved in many countries for adult treatment of medication-resistant major depression and epilepsy. Similar to the vagus nerve, the trigeminal conveys sensory inputs from skin, muscles, and skull to extensive connections within the locus coeruleus, reticular activating system, and nucleus tractus solitarius, regions involved in selective maintenance of attention. Recent data provide increased evidence that TNS exerts its effects via central projections to cortical structures. TNS utilizes a small stimulator worn during sleep to emit a low-level current. Thin wires extend from the TNS device to an adhesive electrode worn across the forehead over branch V1 of the trigeminal nerve. Assuming that benefits of vagal stimulation rely in part on the same brain connections, it was hypothesized that TNS similarly improve seizures and mood, but without costs and risks associated with surgical device implantation (1,2)

2 studies examining the effects of TNS on patients with ADHD were found. McGough and colleagues described an 8-week trial of TNS on 21 children with ADHD, aged 7 to 14. Symptoms of inattention and hyperactivity / impulsivity, measured by the ADHD-RS were found to improve after the treatment, with reductions in CGI-I scores as well. Parental reports using the Behaviour Rating Inventory of Executive Functioning, showed improvements as well. Improvements were also seen in the Attention Network Task incongruent reaction times, alongside improvements in sleep anxiety and sleep problems, as measured by the Children's Sleep Habits Questionnaire (3). A further sham controlled double-blind study by McGough and colleagues involving 62 children with ADHD aged 8 to 12 was done. Participants were randomized, receiving either active or sham TNS, with the same protocol as the earlier study by the same group. ADHD-RS scores of both groups showed improvements during the first week, with improvements in subsequent weeks seen only in the group having active stimulation. The group receiving active stimulation also showed significantly improved CGI-I scores compared to the group receiving sham stimulation(1). In this course, we will discuss promising therapeutic effects of TNS which has been shown to be nearly as effective as non-stimulants in children and adolescents.

Keywords: ADHD, TNS, therapy

[Abstract:0783]

0783 - Contributions of stem cells to individual-specific treatment practices in psychiatry

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Previously psychiatric diseases were treated with medications with broad pharmacological profile. These medications can affect many neurotransmitter systems [1]. Due to this feature, these types of drugs like tricyclic antidepressants or first-generation antipsychotics had weak compliance to medication and caused serious adverse side effects held responsible for sudden cessation [1]. The discovery of human embryonic stem cells led to hope for improvement in many diseases with poor prognosis. Neuropsychiatric diseases may be listed among these diseases. Creation of pluripotent stem cell (iPSC) sequences, stimulated specific to the disease for patients with no treatment possible, is a promising approach to investigate the determination of drugs most suitable for the disease mechanisms and the patient [2]. The process of drug discovery for neuropsychiatric disorders requires a range of clinical, social and economic innovations [2,3]. The use of iPSCs specific to the individual and patient with this aim allows the possibility of being able to produce neuronal cell-based models reconstructing key aspects of the disease. As research access to physiologically active and relevant cell types in the central nervous system is limited within the scope of neuropsychiatric disorders, invitro cultures of human neurons and glial cells derived from human pluripotent stem cells are effective[2,3]. Among applications related to early stage drug discovery are quantitative biochemistry, functional genomics, proteomics and perhaps most importantly high yield and high content chemical screening tests. With the development of reprogramming methods ensuring production of induced pluripotent cells from patient fibroblasts and peripheral blood mononuclear cells, there is the possibility for new approaches to investigate relevant disease biology using iPSC-derived neurons. However, while early studies with patient iPSCs had promising results, the complexity of neuropsychiatric diseases continues to be a significant obstacle to in vitro determination efforts in relation to the biology of these diseases. Though it was proven that culture systems derived from human iPSCs can be adapted to many phenotypes and screening formats, in vitro phenotypes are related to disease pathophysiology and as a result they require careful assessment to have greater possibility of determining effective pharmacologic agents for treatments which can change the progress of the disease [3].

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Keywords: Stem Cell, Psychiatric Diseases, Pharmacology, Personalized Medicine

[Abstract:0784]

0784 - Antiparkinsonian and psychiatric drugs

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Parkinson's disease (PD), which affects millions of people worldwide, is a neurodegenerative disease that involves impairment of motor, mental and functional skills. This degenerative deterioration increases mortality rates and negatively affects patients' quality of life. Motor movement disorders are clearly emphasized as the main findings of PD; non-motor symptoms such as depression, anxiety, and psychosis, however, are important areas of interest that should be addressed in this patient population. Mental health problems are common in PD; More than 60% of patients have one or more psychiatric symptoms. Among these problems, depression is the most common psychiatric disorder in PD, with reported rates of 20% to 90%. (1) Besides depression, patients with PD may also experience psychosis, impulse control disorders, mania and sleep disorders. Psychiatric disorders in this population are thought to result from both the underlying pathophysiology of PD and the adverse effects of antiparkinsonian drug therapy. This relationship is more likely to be at the neurotransmitter level and includes complex interactions between dopamine, acetylcholine and serotonin. (1)

This poses an important treatment challenge when considering dopaminergic and anticholinergic drugs and other drugs affecting the central nervous system (CNS) used to treat both disease states. For this reason, drug therapy is important for patients with a dual diagnosis of PD and a psychiatric disorder due to possible drug interactions.

There are many challenges in treating both diseases that make it difficult for us to take the right treatment approach. The two most common problems are worsening of both psychiatric diseases and PD symptoms and drug - drug interactions between agents used to treat disease states. There are many drug - drug interactions between medications used to treat PD and psychiatric diseases. The most common drug-drug interactions occur between dopaminergics and antipsychotics / anticholinergics, and MAOI-Bs and antidepressants.

The first step in the treatment of PD patients with mental health disturbance is to rule out underlying conditions and nonantiparkinsonian drugs that may cause, then simplifying drug therapy of PD. (2) Reducing or removing antiparkinsonian medications that may cause, it can facilitate the treatment of psychosis, ICDs, and mania. (3) If motor dysfunction occurs in a patient with dosage or drug reduction, adding an antipsychotic (clozapine, quetiapine) may be considered.

Especially multidisciplinary approaches that is in communication neurologists and psychiatrists, on drug-drug interactions, can play an important role in optimizing the treatment of PH accompanied by mental health problems. These approaches can ensure that each disease condition is adequately treated and ultimately can improve patients' quality of life.

Keywords: antiparkinsonian drugs, psychotropic, psychiatric drugs, parkinson's disease, drug interactions

[Abstract:0788]

0788 - Etiology of child and adolescent substance addiction

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When focusing on the etiology of substance use disorder; individual, familial, genetic, psychosocial and neurochemical factors come to the fore. In terms of individual factors, in addition to exposure to substances in the prenatal period, many comorbid disorders including depression, anxiety disorder, destructive behavioral disorders, eating disorders, and ADHD have been associated with substance use disorders. Many children and young people who use drugs have comorbid disorders. In a study conducted by Kendler et al., substance use disorder is two to three times more common in children and adolescents with anxiety problems than their peers. (1)

Among the family factors, ineffective, coercive or hostile parenting, abuse, neglect, and poor control increase the risk of both behavioral disorder and substance abuse (2) Also, parents who use drugs increase the risk of substance use. (3).

When the genetic factors are examined, concordance is reported to be high in monozygotic and dizygotic twins for alcoholism. Genetic effects contribute to the development of substance use and constitute 40% to 60% of the alcohol use risk and 30% to 80% of the cannabis use risk. (APA, 2013). Recent studies shed light on the role of gene polymorphism on the individual difference in response to substance use; low-repeating MAO-A allele may exacerbate the harmful effects of cocaine in the brain.

When psychosocial factors are investigated, those that increase substance use disorder are as follows; adolescence being a risk-taking period, using drugs to escape and relieve stress, anxiety and unhappiness caused by changes in roles and expectations at school or at home, economic deprivation, homelessness, moving away from school and home, criminal behavior, substance accessibility.

When looking at neurochemical factors, for example opioid dependence; there is a hypothesis that people with very little endogenous opioid activity and endogenous opioid antagonists are seen at a higher rate. In neurotransmitter function studies, an abnormal dopamine receptor (D2) was found in most individuals with alcohol dependence and at least half of those who are addicted to cocaine.

From a behavioral perspective, altered states produced by drugs (low tension or increased mood) can be a useful alternative for those taking them, because substance use is about activating reward centers in the brain. Individuals who become addicted to substances and show signs of physiological tolerance and withdrawal often continue to use the substance because it is a way to relieve tension and rewards itself, increasing the risk of increased use. Relieving tension is the first side effect of many drugs, including alcohol and marijuana. Given the high level of stress and tension, many people can self-medicate to relieve tension. This suggestion is supported by the high comorbidity of depression and anxiety disorder in substance use disorder.

Keywords: Etiology, Psychosocial Factors, Substance Addiction

[Abstract:0789]

0789 - Genetic high-risk groups: for anxiety disordersBurcu Yıldırım Budak¹, Neşe Perdahlı Fiş², Gözde Yazkan Akgül³, Tuğba Didem Kuşcu⁴

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Anxiety is a feeling of fear and worry that is difficult to define, with a protective and adaptive function that every individual experiences. Anxiety disorder is mentioned when anxiety occurs frequently and severely without any danger and causes a significant distress in the person's life and reduced functionality. Anxiety disorders are one of the common problems of child psychiatry. Genetic, neurochemical, neuroanatomical and environmental factors, familial transition, temperament and modeling are responsible for the etiology of anxiety disorder. It is known that genetic and familial factors are important risk factors in etiology.

Individuals become at high risk when they have common genetic and/or environmental factors that predispose to anxiety disorder and do not provide protective genetic and /or environmental factors for the disorder. Being in the high-risk group for anxiety disorder may affect anxiety disorder's probability of occurrence, age of onset, course, and response to treatment.

Population genetics has been studied in previous years through family, twin and adoption studies. Data based on the role of genetic factors in etiology and familial transition in anxiety disorder have increased. With the Human Genome Project, significant advances in molecular genetic methods, including cytogenetics and linkage and association studies, have allowed us to learn more about many psychiatric disorders. One of the most prominent genes in anxiety is the serotonin transporter gene (SLC6A4, 5-HTTLPR). The SLC6A4 promoter, with its short or long form, shows length polymorphism. Compared to the long form, the short form has been associated with a decrease in the transcription of SLC6A4 and a decrease in SLC6A4 expression and serotonin reuptake. With increased genetic linkage and association studies, polymorphism alleles such as genes, encoding the serotonin transporter and its receptor, BDNF, COMT, CNTNAP2 and oxytocin receptor, which genes that cause genetic predisposition to the anxiety disorder, may become detectable in the future. Thus, in the high-risk group for anxiety disorders, new therapeutic strategies such as knowing the factors predicting anxiety disorder, taking preventive measures before anxiety disorder has occurred, reducing anxiety symptoms, determining comorbid conditions and testing the response of pharmacological agents to treatment and determining optimal/alternative treatment options in treatment-resistant cases will be indicate a new direction.

There is no reliable yet genetic or non-genetic biomarker specific to anxiety disorder used in routine to determine high-risk groups for anxiety disorder and predict the response to antidepressant agents, including SSRIs. A genetic biomarker, such as the BDNF genetic variant, may be an important option for identifying new pharmacological approaches. For example, drug discovery strategies to increase BDNF release or extend half-life from synapses can improve therapeutic responses in individuals with common BDNF polymorphisms. The identification of endophenotypes and biomarkers specific to anxiety disorders will accelerate the genetic studies in this field; therefore, it should be the main target of future researches.

Keywords: Anxiety disorders, genetic, high-risk, polymorphism.

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[Abstract:0790]

0790 - TMS applications in Autistic Spectrum Disorders and Comorbidities

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Autism Spectrum Disorder (ASD) is a behaviorally defined complex neurodevelopmental syndrome characterized by disorders in social communication, the presence of restricted and repetitive behaviors, interests and activities, and abnormalities in sensory reactivity. Little is known about the neurobiological mechanisms underlying ASD symptoms, but impaired cortical inhibition control may explain some symptoms. Cognitive function, sensory sensitive, social, emotional areas due to E / I (excitation-inhibition) imbalance are affected.

Recent studies show that TMS measurements provide fast and noninvasive pathophysiological ASD biomarkers. Following standardized guidelines and procedures, human studies with adults and children have shown that TMS procedures are safe and well tolerated. TMS can be a promising tool to evaluate the neurophysiological basis represented by the E / I balance of ASD. There are various paradigms to assess, for example, motor evoked potential (MEP), short-term intracortical inhibition (SICI), intracortical facilitation (ICF), long-term intracortical inhibition (LICI).

Recurrent TMS (rTMS) may represent a new treatment strategy to reduce some core and associated ASD symptoms. Peak alpha frequency (PAF) is an electroencephalographic measure of cognitive accumulation and can be a marker of cognitive function for autism. The results showed significant increases in the frontal region, left temporal region, right temporal region and occipital region in PAF after TMS, and a significant increase in alpha compatibility between the central region and the right temporal region. On the other hand, recent research has shown that some autistic individuals are associated with the activity of the sympathetic branch of ASD symptoms and a decrease in parasympathetic activity. Aiming to reduce the high cortical stimulation / inhibition (E / I) ratio, the application of TMS to the frontal cortex can be an effective technique in restoring inhibition and improving sympathetic-vagal heart balance in autism.

On the cerebral cortex; low-frequency protocols create inhibitory effects, high-frequency protocols excitatory effects. Considering the neural level dysfunction as well as abnormal synaptic plasticity and stimulation / inhibition rate in ASD, current data emphasizing both the research and modulation capacity in the autism research area. Its start should be explored in a number of laboratories worldwide.

Keywords: tms, autism, neuromodulation

[Abstract:0795]

0795 - The art of prescribing antidepressants: keys for selection, titration and cessation

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Use of antidepressants is common for treating psychiatric disorders in daily practice of psychiatry. There are several choices of antidepressants as tricyclics (TCAs) (for example amitriptyline, imipramine, nortriptyline, clomipramine, amoxapine, desipramine, dosulepin, doxepin), monoamine oxidase inhibitors (MAOIs) (for example moclobemide, selegiline, tranylcypromine), selective serotonin reuptake inhibitors (SSRIs) (for example sertraline, citalopram, escitalopram, fluoxetine, fluvoxamine, paroxetine), serotonin-noradrenaline reuptake inhibitors (SNRIs) (for example venlafaxine, duloxetine, milnacipran) and other agents (mirtazapine, reboxetine, bupropion, vortioxetin).

In Turkey and many other countries, antidepressant use has risen dramatically during the last decades, mainly because of the increasing use of SSRIs and newer antidepressants that have progressively become the most commonly prescribed antidepressants. It is hard to decide to select and prescribe antidepressants because of the evidence for similar efficacy.

At this stage, in addition to the effectiveness of antidepressant, the patient's characteristics also come into play. The content of the patient's clinical symptoms, concomitant medical illnesses, concomitant drug use (warfarin, tamoxifen etc.) are some of the factors that help us in deciding the possible side effects related to the previously beneficial treatment and medication.

Besides choosing the right antidepressant; starting and titration of the selected antidepressant and its combined use with other drugs can be a challenging topic for physicians. In addition, discontinuation of the antidepressant being used requires effective management, especially for antidepressants with significant withdrawal symptoms.

In this course, an interactive presentation about choosing the appropriate antidepressant, starting and cessation of medication and combining it with other medications will be discussed.

Keywords: antidepressants, psychiatry, SSRI

[Abstract:0796]

0796 - Stimulating the child's brain: is tms safe, effective and practical method for children with adhd or depression?

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Transcranial magnetic stimulation is one of the neuromodulation techniques which is used in several psychiatric disorders since late eighties. Neuronal structures in the brain is stimulated in a non-invasive manner through rapid changing magnetic fields which result in electrical activity and eddy currents especially on cortical tissues. Eddy currents causes depolarisation or hyperpolarisation in the axon membrane that may effect the cortical plasticity and eventuate into long term potentiation (LTP) or long term depression (LTD).

Developmental processes have some dramatic changes upon the brain structures from childhood to adolescent period. Those changes include massive cortical synaptic pruning, increase in myelinization, delayed maturation for frontal cortical functions and high activation in the field of subcortical reward systems. According to these differences TMS, as a neuromodulation technique should re-evaluated while using for pediatric populations on the basis of effectivity, safety and practical issues.

Depression is one of the most common psychiatric disorders in the adolescence period of life. Delayed improvement in symptoms, frequent relapses, comorbidity and increased suicide risk are main challenges mostly seen among adolescents other than adults. Treatment modalities with psychotropic medications are limited and often partially responded. TMS may be useful method for patients who do not response standard treatment approaches. rTMS procedure is mostly used in the studies which have frequency 10 Hz with meanly 100% intensity and nearly always located on left dorsolateral prefrontal cortex (LDLPFC). Although there are some methodological restrictions, low numbers of cases and short follow-up periods, TMS may be an effective and safety treatment option for adolescent depression.

Attention-deficit hyperactivity disorder (ADHD) is one of the most prevalent neurodevelopmental disorders, affecting 2 – 7.5% of school-aged children and often persisting into adulthood. There are no widely accepted biomarkers and diagnostic tests for ADHD. This is why diagnosis of ADHD is made by parent and teacher-reported scales in combination with clinical impression. TMS may provide some significant informations about neurophysiology of ADHD and help address the aforementioned challenges. Neurophysiological TMS measurements in children with ADHD commonly focused on inhibitory control include decreased short interval intracortical inhibition (SICI), dysfunctional transcallosal inhibition and longer ipsilateral silent period (ISP). Eventough TMS studies for ADHD are mostly rely on diagnostic approaches, several therapeutic intervention studies have been done up to now. Despite the fact that pharmacological treatments for ADHD are generally effective and long-term outcomes improvements are strongly and well documented, some patients do not respond to this treatment modality. In addition, clinical use of these treatments may be restricted due to some adverse reactions and also concerns of abuse. In these therapeutic studies of ADHD, TMS well tolerated and clinical improvement in symptoms was seen.

In this presentation, we will discuss therapeutic effects, tolerability and practical utility of TMS in pediatric population diagnosed with ADHD and depression.

Keywords: Depression, Attention-deficit hyperactivity disorder, Neuromodulation, TMS

[Abstract:0799]

0799 - Genetic predictors of lithium response

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Mood stabilisers are the first-line mode of medication treatment for bipolar disorder. Among these drugs, lithium stands out as a preventive agent for episodes, suicide attempts. Consequently, lithium is still recommended as the gold standard option treatment for bipolar disorder, even though individual response is variable. Research shows that one third of bipolar patients respond very well to lithium, one third respond partially, and the remaining third group do not. Another remarkable observation regarding lithium response is that treatment success is higher in people with bipolar disorder patients who respond well to lithium in their family. Clustering treatment response in families points to the importance of genetic processes. From this perspective, researchers have attempted in recent years to identify genetic variants that may be associated with response to lithium in patients and to develop a pharmacogenetic test to predict patients who will benefit from lithium. Candidate genes participating in monoaminergic neuro- transmitter systems (primarily serotonin and dopamine), the circadian system, neurotrophic mechanisms, or the inositol signalling pathway have been the most studied targets in the literature of lithium response genetics, but replicated findings have not yet emerged. In addition, although consistent information was obtained in 4 genome-wide association studies (GWAS), have not generally been able to achieve sample sizes large enough to detect variants of minor effect. Recently, microRNAs and telomere length studies have attracted attention in lithium response. In addition, PRS (polygenic risk scores) derived from pharmacogenomic studies, new generation sequencing technologies and cellular modeling studies are expected to provide stronger data in the coming years. In this session, genetic findings related to lithium response will be reviewed in line with current data.

Keywords: bipolar disorder, genetic, GWAS, lithium response

[Abstract:0801]

0801 - Brain circuits and treatment in obsessive-compulsive disorder

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Obsessive-compulsive disorder (OCD) is a common and chronic condition that is often debilitating and associated substantial global disability. OCD is associated with changes in the construction and activity of paralel and interacting brain circuits involved cognitive controls, motor functions and especialley emotional processing that including reward and fear circuits. These brain circuits develop under strong genetic and environmental influences in the prenatal and early childhood periods. Disease symptoms may change overtime and targed-directed behaviors that response to reward or anxiety generally become more habitual.

Studies have shown that the hyperactive cortico-striato-thalamo-cortical circuit implicated in OCD showing diminished serotonergic and gabaergic inhibitory tone from medial prefrontal cortex interneurons and midbrain raphe nuclei resulting in striatal dopaminergic and glutamatergic hyperactivity. Mental processes and recurrent behavior during course of OCD contribute mainly to neuroplastic changes in the respective circuits in chronicity. But then, successful treatment can normalize modified circuit function or induce compensatory mechanisms.

Keywords: Obsessive-compulsive disorder, Brain circuits,treatment

[Abstract:0802]

0802 - Behavioral addictions during perinatal period: with the perspective of attachment theory

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Addiction is a major health problem in Turkey and in the world, this problem also continues its existence and importance in the perinatal period. Behavioral addictions make their mark on the present day as an increasing health problem. In this field, many sub-titles such as gambling addiction, internet addiction, video playing addiction, sex addiction, technology addiction, shopping addiction are research topics. In DSM-V addictions section, only gambling addiction accepted as a diagnosis and named it as "Gambling Disorder". On the other hand, internet addiction has not been included in the main category in DSM-V but it has been proposed as a new diagnosis as 'Game Addiction on the Internet'. Although it is possible that behavioral addictions can be seen in pregnancy as well as it is seen in all individuals, there is no research that evaluates this issue in multiple dimensions during pregnancy and postpartum period. During pregnancy and postpartum period; behavioral addictions especially technology and internet addiction may develop insidiously, differences in behavior may not be understood, and the mother-baby relationship can get deep wounds in this process. In addition to the loss of psychosocial functionality caused by addiction; the mother baby relationship may be affected. Effective pharmacotherapy guidelines for the treatment of behavioral addictions in the perinatal period are not yet available. This increases the importance of psychotherapy and other life-regulating approaches in this period. At this point, besides psychotherapy models that have been shown to be effective in behavioral addiction; assessments to be made in terms of attachment theory may be helpful in interpreting the relationship between the mother and baby with addiction and developing appropriate approaches. Evaluations about behavioral addictions, their possible appearance in the perinatal period, their effect on the mother-baby relationship, treatment and solution suggestions are needed.

Keywords: perinatal, addiction, pregnancy, behavioral addiction, attachment

[Abstract:0805]

0805 - How does it work: AIP and neurobiology of EMDR

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Eye movement desensitization and reprocessing (EMDR) therapy is an effective therapy for psychological traumas. Brain have a natural ability to recover from traumatic events. This natural recovery system consist of amygdala, hippocampus and prefrontal cortex. Amygdala works as an alarm signal for stressful events, hippocampus allows learning from experiences and memories and prefrontal cortex analyzes and controls behaviour and emotions. While many times traumatic experiences can be managed and resolved spontaneously, they may not be processed without help. Traumatic events may damage the mental and emotional processes and affect brain physiology. There are many neurobiologic studies (PET, SPECT, fMRI, MRI, EEG) that shows changes in metabolism, brain morphology, and networking in the amygdala, the medial prefrontal cortex (mPFC), and the hippocampus after traumatic events. EMDR therapy helps the brain process these memories, and allows normal healing to resume. Traumatic experiences and memories move from an implicit subcortical state to an explicit cortical state and are properly processed, reelaborated, and adapted into patients' semantic memory.

Keywords: trauma, EMDR, neurobiology

[Abstract:0806]

0806 - Genetic high risk groups: for psychosis

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It has been clear that individuals with genetic risk for psychosis may have psychotic features and a subgroup may develop schizophrenia during adolescence or adult life. On the other hand, life time schizophrenia risk is also determined by certain environmental and individual, risk and protective factors, besides genetic predisposition. The identification and the follow-up of the groups that have a high possibility of developing psychosis and related disorders and appropriate interventions on these groups has become a focus of interest in recent years. Studies comparing these groups with individuals with psychotic features and healthy controls are increasing. A wide range of studies, from cross-sectional studies examining trait features, neurodevelopmental, neurocognitive, and neuroimaging findings, to longitudinal studies examining whether or not psychotic symptoms have emerged, are being conducted.

In genetic studies, it is suggested that the hereditary transmission of schizophrenia varies between 60-80%, although complex and phenotypic expression is variable. As a result of family, twin and adoption studies, the risk of developing lifelong schizophrenia was determined as 6% for individuals with schizophrenia in their first-degree relatives. There is important evidence for gray matter and white matter abnormalities in these individuals in the periods before the development of psychosis in neuroimaging studies. In early childhood, it was found that these children completed the neurodevelopmental milestones later than their peers. In familial risk groups deviations in brain functions affecting frontotemporal circulation affect neurocognitive abilities, causing various deficiencies in cognitive flexibility, processing speed, verbal memory, working memory, verbal fluency and attention. High rates of psychopathology have been reported in individuals with genetic high risk groups for psychosis, a lifelong psychiatric diagnosis rate was 58.5%. It was reported that the most common disorder was ADHD with 46.3%, followed by anxiety disorders and disruptive behavior disorders, respectively.

These developmental problems that arise in the early period may cause predisposition to develop schizophrenia on the one hand, and may only cause different phenotypic effects. In order to distinguish these two results carefully, it is recommended to plan future studies in this field. Based on this, it is suggested that the first step is to review the clinical staging model from a neurodevelopmental perspective. It is suggested that enriching the staging with additional neurodevelopmental data will contribute to determining more appropriate early intervention strategies on a case-by-case basis. Whether the interventions to be implemented are low-risk supportive or psychosocial interventions, or higher-risk pharmacological or experimental interventions, the primary focus is that these interventions cover ethical practices for the risky group.

Keywords: Psychotic Disorder, High risk, Genetic

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[Abstract:0807]

0807 - Brain circuits and treatment in depression and anxiety disorder

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Even there have been enormous improvements in the comprehension of human dysfunctions in the brain circuitry for self-reflection, emotion, and cognitive control, a brain-based taxonomy for the mental disease is still deficient. Consequently, these improvements have not been translated into enforceable clinical instruments, and the language of brain circuits has not been getting involved in training programs [1]. Complex emotional, cognitive, and self-reflective functions depend on the activation and linkage of large-scale neural circuits. These circuits present an appropriate scale of focus for conceptualizing a taxonomy for depression and anxiety based on specific profiles (or biotypes) of neural circuit dysfunction. The focus is on neural circuits involved in resting reflection (default mode), detection of “salience,” affective processing (“threat” and “reward”), “attention,” and “cognitive control.” Next, the present proof concerning which type of dysfunctions in these circuits describe depression and anxiety disorders is revised. Based on the review of these subjects, a conceptual system is recommended for evaluating neural circuit-defined “biotypes.” In this system, biotypes are described by profiles of the scope of dysfunction on each large-scale circuit. The clinical effects of a biotype method for guiding classification and treatment of depression and anxiety are thought [2]. Major Depressive Disorder (MDD) is associated with alterations in regional brain volumes, especially the hippocampus, and with functional alterations in brain circuits, such as the cognitive control network and the affective–salience network [3]. Future research directions will improve the validity and clinical benefit of a neural circuit biotype model that covers diagnostic categories and helps to transform neuroscience into clinical practice in the actual world [2].

Keywords: anxiety disorders, biological markers, brain, depression, neural circuit, treatment

[Abstract:0808]

0808 - Treatment of child and adolescent addiction

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Substance Use Disorder is very common worldwide, and its treatment is very complex. Depending on the definition of addiction, the treatment options vary, who and when we will be treated. Until recent years, most studies on addiction have been done with the adult population. As studies with children and adolescents increase, it is understood that, like other psychiatric disorders, child and adolescent addiction is a different entity than adult alcohol / substance addiction. In this sense, the etiological factors underlying child and adolescent addiction differ from adult addiction in terms of addiction types, response to treatment and prognosis. There are differences in child and adolescent addiction such as the possibility of multiple substance use and comorbid disorders, and psychosocial support systems being important. In addition, the developing adolescent brain is open and sensitive to the effect of the substance. Considering all these differences, treating child and adolescent addiction is an important problem. In this part of the panel, the practices applied in the treatment of alcohol / substance use disorder in our country and clinic will be discussed in the light of the literature, and some factors that will be considered differently from adults in the treatment of child and adolescent substance use disorder.

Keywords: Addiction, Child, Adolescent, Treatment

[Abstract:0809]

0809 - Scientific basis of emdr in child and adolescents-what does new data say: does it really work?

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Compared to other psychotherapies, Eye Movement Desensitization and Reprocessing (EMDR) is a novel psychotherapeutic approach for treatment of child and adolescent psychopathology. When the keyword "EMDR" is written in the Pubmed database, only 696 results are shown. This number of results is lower than many other therapy techniques. However, the number of studies has began to increase in recent years. So, what does the study say about the effect of EMDR on Post-Traumatic Stress Disorder(PTSD)? In a review that investigate the 25-year history of EMDR, EMDR is a useful, evidence-based tool for the treatment of PTSD. The results of the studies comparing EMDR and other therapy models are quite different. For example, a metaanalysis published in 2016 said that evidence supports efficacy of exposure therapy (high strength of evidence [SOE]) including the manualized version Prolonged Exposure; cognitive therapy, cognitive processing therapy, cognitive behavioral therapy-mixed therapies (moderate SOE); EMDR and narrative exposure therapy (low-moderate SOE). In contrast, in another meta-analysis found that although all the studies had methodological limitations, meta-analyses for total PTSD scores revealed that EMDR was slightly superior to CBT. As with all therapies, protocols for the use of EMDR in other patient groups have been established. EMDR is currently used in many problems such as Depressive Disorders, Anxiety Disorders, Addiction, Eating Disorders, and Chronic Pain. Jahanfar et al. showed that EMDR improved depressive symptoms in patients with Major Depressive Disorder in a randomized comparative study. Yunitri et al. examined the anxiety symptoms such as phobia, panic, traumatic feelings and behaviors/somatic. This meta-analyses indicates that EMDR is efficacious for reducing symptoms of anxiety, panic, phobia, and behavioural/somatic symptoms. However further research is needed to explore EMDR's long term efficacy on anxiety disorders. The need for further studies is noted in almost all EMDR publications. Besides existence the few studies, there are problems with the methodology of most of the studies. As a result, EMDR can be considered as an effective method for many psychiatric disorders.

Keywords: EMDR, Children, PTSD

[Abstract:0810]

0810 - Examination of cognitive theory with metaphor

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Psychotherapy is based on talking and communicating with the patient or client; It is defined as the whole of methods and techniques that increase the compliance of the individual as a social asset by reducing the painful symptoms of the individual. One of these many methods and techniques is the use of metaphors, which has become very popular recently. The use of different metaphors for different psychopathologies is discussed in detail in Cognitive Behavioral Therapy CBT. The use of metaphor for enriching communication and better understanding of the issue is in question for all types of therapy.

Skinner's approach of behaviorism that language is verbal behaviour; It has been radically criticized by Chomsky. The "Universal Grammar" (UG) (Language Acquisition Device-LAD) theory, which is much richer and more efficient in terms of language-thought-brain relationship, has become the dominant paradigm. Cognitive psychology is a model for the functioning of the world in which we all live in our minds; argues that this model is the symbol in the mind and that the brain manipulates the symbols like a computer. This approach dominated between 1950 and 1975 in the fields of language science, psychology, artificial intelligence, neuroscience. UG is an attempt to explain the language as symbol manipulation of the brain.

Lakoff objected to Chomsky's theory as a computer model; UG theory is a dysembodied, inanimate computer and does not contain any meaning. Lakoff and Jhonson redefined metaphor in 1980 and brought a conceptually radical approach to metaphor. According to the conceptual metaphor theory, thinking processes are based on metaphor; thinks in line with metaphors and actions are carried out. It has re-conceptualized the metaphor as a fundamental feature, beyond the language context, that is at the basis of thought, even the mind. It is called "neural theory of thought and language" because it deals with thought - language activities on the basis of nerve cell-brain.

Keywords: cognition, language, metaphor, brain

[Abstract:0812]

0812 - The impact of screen exposure and social media on child and adolescent mental health

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One of the biggest differences in the lives of current youngsters, compared to earlier generations, is that they spend much less time connecting with their peers and relatives in person and more time connecting via screens electronically. The link between online activities and mental health symptoms is increasingly supported by research such as European Kids Online, Turkey being a participant of the current project (1). In recent studies, young users who spend more time on social platforms have higher rates of reported depressive and anxiety symptoms than those who spend less time online (2). On the other hand, studies have found out that moderate online gaming and interaction protects against mental health issues. There is strong anecdotal evidence from surveys of young people that communicating online makes them feel better about themselves and more connected (3).

In a new set of guidelines, the World Health Organization (WHO) said that infants under 1 year old should not be exposed to electronic screens and that children between the ages of 2 and 4 should not have more than one hour of “sedentary screen time” each day (4). There is a growing evidence of screen-based media use associated with differences in the structural integrity of brain white matter tracts that support language and literacy skills in preschool-aged children (5) The National Institutes of Health has funded a recent project known as the ABCD Study (for Adolescent Brain Cognitive Development) (6), which hopes to show how the brain development is affected by a range of experiences, including substance use, concussions and screen time.

Parents routinely express worries that their children are addicted to screen, devices, the Internet, and video games. When children seem unhealthy focused on screen to the point of social isolation, the behavior indeed may be a product of other mental health problems. They may be using online communities and the instant rewards of gaming to cope with social anxiety, depression, or a learning disorder. Addressing these problems can reduce “internet addiction” through the treatment of underlying conditions. We will also discuss the findings from a “Healthy Brain Network” study (7) of the links between mental health outcomes and Problematic Internet Use (PIU), a proposed diagnosis of excessive and impairing online behavior. Topics of Attention Deficit Hyperactivity Disorder, depression, eating disorders, sleep, and circadian rhythm disorders and autistic spectrum disorders concerning PIU will be discussed.

Limiting, and in some cases eliminating, screen time for children under the age of 5 will result in healthier adults, is strongly recommended by WHO. But taking away iPads and other electronic devices are only part of the solution. Children under 5 should also get more exercise and sleep to develop better habits that will stave off obesity and diseases in adolescence and adulthood. Protective and reorganizing strategies for the youngsters who are at-risk and screen-free parenting will be the main discussion topics rather than restrictive attempts of management of PIU in our meeting session.

Keywords: screen exposure, social media, problematic internet usage, children, adolescent

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[Abstract:0819]

0819 - Addiction and language

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The language used in addiction treatment seems to be an important issue that can have an effect on the practice of treatment, the period of early treatment and on long term treatment periods. The terms which represent social norms and attitudes may affect the viewpoint on addiction and addicts. While some terms such as abuse have been subject to criticism due to their stigmatizing features, the concept of “use disorders” in DSM-V, which aims to reduce stigmatization in the literature, has not been settled yet. It is a separate issue to express the concepts of “addiction” and “dependence” in the literature, which are reported to have different meanings. On the other hand, organizations such as AA (alcoholics anonymous) conceptualize the problem of alcohol dependence with the word “alcoholic”. On the other hand, it seems like a marketing method to use slang words such as "herb" "wave" "cheese" to neglect the negative effects among the people for the substances used in our country. Apart from the concepts that define addiction, the stigmatizing aspect of using “clean, dirty, sober” concepts to define the periods of healing and re-illness is another emphasis. The terms slip, laps, relapse and recurrence, maintenance are used by experts to define these periods. While the importance of the language of addiction in foreign literature appears as a subject of scientific literature, this issue has not been brought up in our country yet and it has not been opened to discussion to develop a language that encourages treatment that covers our cultural structure, reflects scientific knowledge and respects patients.

Keywords: addiction, language, healing, stigmatization

[Abstract:0820]

0820 - Language of psychotherapy: is it possible to develop a common language?

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Psychotherapy is being applied more and more in the world today and it is developing different and new methods. On the other hand, the tradition that started with Freud continues to have core elements in many applications. All these practices and theories try to explain the concepts of the psyche to human and to transform it into improvement. Over time, it has been observed that many different schools of psychotherapy include similar concepts and practices, and interpret them with their own perspective, but the common elements are considerably many. In order to identify these common elements, institutions (for example Society of Psychotherapy Research, Society of Exploration in Psychotherapy) and professionals dealing with psychotherapy from many countries have created a task force and carried out studies as presented in ‘Common Language for Psychotherapy Procedures: The First 101’. The aim of developing a common language is to help to avoid from the often confusion professionals and patients about the different terms used to define same concept of procedure. Also it would help to speed psychotherapy’s integration into science. In this presentation suggestions and current studies in the world about developing a common language for psychotherapy will be discussed.

Keywords: language, psychotherapy, common, psychiatry

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[Abstract:0822]

0822 - Serotonin syndrome

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Serotonin syndrome (SS) is observed across the full range of age groups, from neonates to the elder people, with an increasing incidence likely to represent the increasing use of serotonergic drugs in clinical practice. The exact incidence of SS, however, is unknown, as is the number of cases that are mild, moderate, or severe. Because, it is a relatively uncommon condition that cannot be easily studied in randomised clinical control trials, and also the condition is under-recognised and underreported by physicians.

Serotonin syndrome (SS) (also referred to as serotonin toxicity) is a potentially life-threatening drug-induced toxidrome associated with increased serotonergic activity in both the peripheral and central nervous systems. It is characterised by a dose-relevant spectrum of clinical findings related to the level of free serotonin (5-hydroxytryptamine [5-HT]), or 5-HT receptor activation (especially the 5-HT_{1A} and 5-HT_{2A} subtypes), which include neuromuscular abnormalities, autonomic hyperactivity, and mental state changes. Severe SS is usually precipitated by the simultaneous initiation of 2 or more serotonergic drugs, but the syndrome can also occur after the initiation of a single serotonergic drug in a susceptible individual, the addition of a second or third agent to long-standing doses of a maintenance serotonergic drug, or after an overdose. The combination of a monoamine oxidase inhibitor (MAOI), inhibits the metabolism of 5-HT, with serotonergic drugs is especially dangerous, and may lead to the most severe form of the syndrome, and occasionally death. Mild cases may present flu-like symptoms, while severe cases may progress rapidly to cardiovascular collapse and death. Several potentially life-threatening diseases share signs and symptoms similar to those present in SS, so it is very important to make an accurate and timely diagnosis. These diseases include neuroleptic malignant syndrome, anticholinergic toxicity, malignant hyperthermia. All may result in some degree of autonomic dysregulation and an acutely altered mental status. In patients experiencing SS, toxicity usually resolves following the discontinuation of serotonergic medications. Seventy percent of patients recover completely within 24 h, 40% of patients require admission to an intensive care unit, and only 25% of patients require endotracheal intubation. In addition to stopping serotonergic medications, the treatment of SS in humans has consisted primarily of supportive care, including the administration of benzodiazepines. In the presentation, it will be aimed to review the pathophysiology, clinical presentation, differential diagnosis and management of serotonin syndrome.

Keywords: adverse effects, antidepressive agents, serotonin syndrome

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[Abstract:0828]

0828 - Psychodynamic approach to traumatic psychopathologies in children and adolescents

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Much of our knowledge about trauma is based on studies about adults. As evidenced by the birth of new scientific disciplines, what we learn from adult research may not apply to children and adolescents. Indeed, child and adolescent trauma area relatively young, although knowledge base has increased largely in the past two decades. Professionals may have many different perspectives on child and adolescent trauma, particularly in regard to the specific nature of its effects and what interventions may be most effective in reducing negative outcomes and enhancing adaptive functioning. A traumatic event is one that threatens injury, death, or the physical integrity of self or others and also causes horror, terror, or helplessness at the time it occurs. Traumatic events include sexual abuse, physical abuse, domestic violence, community and school violence, medical trauma, motor vehicle accidents, acts of terrorism, war experiences, natural and human-made disasters, suicides, and other traumatic losses. In this speech, psychodynamic approach to traumatic children, adolescents and families are discussed. What are the main factors while formulating a trauma case. In which effective way we would understand the needs of the patient and construct sustainable ways of living a meaningful life

Keywords: trauma, children, adolescents, families

[Abstract:0831]

0831 - Internet addiction and current treatment options

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Internet addiction can be defined as a "non-chemical" behavioral addiction that includes active behaviour. Various terms have emerged to describe the pathological use of digital technologies such as "internet addiction", "compulsive internet use", "mobile phone addiction", "cyber addiction", "internet game disorder", "internet gambling disorder", "social network addiction" and 'problematic internet use' in the literature. Although the concept of internet addiction has emerged since the nineties, it has been included in DSM V as "internet gaming disorders" in the section of recommending conditions for further research. The estimated prevalence of internet addiction rates ranging from 0.8% to 30%. The high variability of the rates are probably due to methodological differences. Although there is no complete consensus on the diagnosis of internet addiction, researches show that its neurobiological, cognitive and behavioral characteristics are similar to substance addiction. Researches show that internet addiction is more common in adolescent and young adult groups and in individuals with psychiatric problems such as depression, anxiety disorder, attention deficit hyperactivity disorder, and alcohol dependence. Research on internet addiction treatment includes pharmacological and psychosocial interventions, but adequate evidence-based treatment protocols have not yet been developed. While SSRIs come to the foreground in pharmacological treatments, the most researched psychosocial interventions are cognitive oriented individual and group therapies.

Keywords: Addiction,,Internet, Pharmacotherapy, Psychotherapy

[Abstract:0833]

0833 - New hopes for chronic psychiatric disorders: stem cell therapies

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Stem cell studies continue rapidly in all clinical branches of medicine at present. While it may be used as a reliable and effective treatment choice in some branches, it remains in the experimental stage in others.

Psychiatric diseases are situations with pathophysiology not fully explained, which place heavy loads on the health system and economy and are related to global morbidity. Due to limitations and side effects of pharmacological treatment, stem cell treatment has come to the agenda along with attempts at individualized treatment. It has begun to be seen that promising results may be obtained for treatment of neurologic diseases in many studies. However, considering publications and studies available about stem cell treatments for psychiatric diseases, it appears there is still some distance to be covered. For stem cell treatment, it is considered that renewal of affected neurons and glia and neuroproduction will play important roles. For this application, pluripotent stem cells (iPSC), adult and fetal stem cells may be used. However, it is recommended that these cells be derived from humans. Debates continue about whether stem cell applications will be therapeutic for psychiatric diseases or whether they will be used to understand the mechanisms of the diseases. Attempts have been made to understand the mechanisms of some diseases like schizophrenia, bipolar disorder, depression, anxiety disorder and autism with iPSCs and a variety of treatments have been attempted. iPSCs were used to understand the effect mechanism of psychotropic medications. Studies have begun to be published stating that stem cell applications have found significant degrees of improvement for treatment of autism patients especially. Allogenic fetal stem cell transplant studies in the liver and brain have reported increases in eye contact and socialization. Major side effects were not observed. However, there are certain limitations to the iPSC model. In addition to advantages, there are some significant disadvantages reported. In addition to patient-linked variables, variations in neuronal differentiation may cause different results. It is important to interpret the findings of studies in light of the differences between studies. Additionally, it is necessary to accept differences between in vivo and in vitro conditions. Studies of adult stem cell treatments have limiting effects in treatment due to reasons like small sample size, lack of randomization, confusing effect of multidisciplinary treatment received by patients, and short follow-up duration. Studies about stem cell treatment for psychiatric diseases is still at infantile level. However, studies have increased in recent years. Encouraging the reporting of the various limitations discussed and developments in stem cell research may guide us to better understanding of the pathophysiology of the diseases, early identification of disease phenotypes and development of treatments.

Keywords: Stem cells, Psychiatry, Therapy

[Abstract:0840]

0840 - Attention deficit/hyperactivity disorder in adulthood

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Attention-deficit/hyperactivity disorder (ADHD) is a highly prevalent neurobehavioral disorder characterized by core symptoms of inattentiveness, hyperactivity, and impulsivity. National survey data revealed that 9.4% of children received an ADHD diagnosis(1). Although traditionally perceived as a disease of childhood, up to 15% of diagnosed cases of ADHD continue to meet diagnostic criteria at 25 years of age, along with 50% displaying residual symptoms. ADHD has a prevalence of up to 5% in adults in whom it causes functional impairment and adversely affects health-related quality of life.

Transitioning from childhood to adulthood are referred to as transitional aged youth (TAY: aged 16–26 years) and is a time during which young people start to endorse the responsibilities of adults and have increased demands for self-regulation and organization(2). Young people with ADHD may meet more difficulties in their transition. ADHD-related problems, which manifest in academic, occupational, and interpersonal domains, can become increasingly problematic during this period. Additionally, emergence of comorbid psychopathologies at this age, (such as mood and anxiety disorders, substance misuse, and personality disorders) and low rates of adherence to treatment, presents unique challenges to providing care for the risky group.

The manifestation of ADHD symptoms differs across the life span. There are more hyperactive/impulsive symptoms in childhood and adolescence, and these symptoms are more likely to diminish over time and with the onset of puberty, whereas inattentive symptoms are more likely to persist, making features of ADHD more subtle and often less obvious in adulthood. The most common presentation of ADHD in TAY includes being easily distracted and having difficulty sustaining attention, blurting out answers and interrupting others, impaired ability to engage in sustained mental effort, an inability to follow instructions, poor organization, forgetfulness, excessive talking, inner restlessness and an inability to sit still for long periods when required. Young people with inattention symptoms experience more difficulties because they are more likely to be underdiagnosed and resulted in lower academic achievement, social impairment and risky behaviors.

Optimal care for individuals with ADHD requires continuity and coordination of interventions as well as monitoring by medical, mental health, and educational providers. This approach have been shown to effectively reduce symptomology, improve daily functioning, better quality of life, and result in long-term beneficial outcomes. Therefore, when children with ADHD reach adolescence, a structured transition of health care services from pediatric to adult services is necessary. The National Institute for Health and Care Excellence (NICE) Guidelines recommend that adolescents should be transferred to adult services following reassessment if they require treatment (3).

At this oral session, features of ADHD at transitional aged youth will be discussed in detail. The difficulties of patients at these ages and recommendations according to international guidelines will be mentioned.

Keywords: Attention-deficit/hyperactivity disorder(ADHD), Transitional aged youth (TAY), Transition, Adulthood

[Abstract:0841]

0841 - Psychoneuroendocrinology and schizophreniaIşık Batuhan Çakmak¹, Işık Batuhan Çakmak²¹Ankara City Hospital, ²Health Sciences University

The importance of endocrinology for psychiatry is increasing day by day and understanding endocrinologic aspects as well as the biological underpinnings of psychiatric illnesses is crucial for the psychiatric practice. Hormonal changes that occur in response to physical or psychological triggers are currently regarded as pathophysiological changes and as targets for hormonally based treatments that are helpful in alleviating the course of the underlying psychiatric diseases. A huge amount of information has now been collected regarding neuroendocrine effects on the brain and behavior which further blurs the line between the fields of endocrinology and neuropsychiatry. The search for markers related to the onset and clinical course of schizophrenia has received attention for many years. Although it is hard to obtain clinically translatable results, growing interest in identifying biomarkers associated with schizophrenia yields some promising results. When exploring the role of stress-related biomarkers on psychotic disorders, hypothalamic-pituitary-adrenal (HPA) axis has been the most studied. Some studies emphasize the role of increased activity of HPA axis and a blunted HPA axis response to stress at the onset of psychosis, although there are no firm conclusions could be drawn for schizophrenia. In addition, recent studies also suggest a potential role for prolactin. There are also changes in the levels of testosterone and DHEA-S in patients with schizophrenia, which are also implicated in differential medication effects during the course of the illness. In terms of BDNF, the Val66Met polymorphism is also found to have a role that may be associated to clinical features including age of

onset, symptoms, therapeutic responses and cognitive aspects. While future studies are required to enlighten several outstanding issues, neuroendocrinologic advances in the course and potential treatment of schizophrenia are crucial for the psychiatric practice.

Keywords: schizophrenia, psychoneuroendocrinology, HPA axis, psychosis

[Abstract:0842]

0842 - Autism spectrum disorder and intellectual disability in adulthood

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Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by impairments in social communication cooccurring with a restrictive, repetitive pattern of behaviors, activities, and interests with estimated global prevalence of about 17 per 1000 children. ASD was initially described as a rare disorder of childhood. However, the prevalence rate of ASD has changed significantly over the past 40 years, perhaps in part because of increasing awareness of ASD and changes in diagnostic criteria and classification systems. There is increasing recognition that ASD is a lifelong neurodevelopmental disorder, but there are many shortcomings in the provision of services for adults with ASD. Although the mental health needs of adults with ASD are less well characterized than those of children with ASD, there is evidence that adults with ASD have significantly increased rates of mental health problems, including mood and anxiety disorders, obsessive compulsive disorder, attention-deficit hyperactivity disorder and psychotic disorders. Furthermore, these comorbid mental health difficulties persist from childhood to adulthood and occur in both males and females with ASD. Moreover, people with ASD can have specific cognitive anomalies, including poor planning, decision making, timing, and motor skills, which may adversely impact on their everyday living skills and ability to access health services.. There is a lack of health service provision for adults with ASD, including identification of comorbid health difficulties, pharmacological and psychological interventions, development of new pharmacotherapies, investigation of transition and aging across the lifespan.

Just like ASD, Intellectual disability (ID) is an area of interest for child and adolescent psychiatrists generally because it is a developmental disorder and problems manifest in the first years of life. However, with the developments in medicine, individuals with ID reach adult and even geriatric age, thus adult psychiatrists are increasingly encountering this group of patients. ID is a heterogeneous group of disorders that begins during the developmental stage, covering both intellectual and adaptive function deficiencies in conceptual, social and practical areas. In the 5th version of the Diagnostic and Statistical Manual of Mental Disorders (DSM), published in 2013, the term mental retardation (MR) has been replaced by the term ID. Individuals with ID carry more risks for psychiatric disorders due to neurodevelopmental factors, communication limitations, social isolation and stigmatization.

As a result, for many reasons such as increased life expectancy, lowered threshold for psychiatry applications in our country, the group with ID and ASD is increasingly examined by adult psychiatrists. Identifying the deficiencies and needs in this field, which is relatively different for adult psychiatrists, and reviewing the psychiatric curriculum will prevent diagnostic difficulties and improve the quality of life of patients and caregivers. Patients in this group have more health problems than the general population. Therefore the quality of health services and access to these services for this group, is an area that should be widely investigated for Turkey like many countries in the world. Comprehensive new policies are needed in this area.

Keywords: autism, intellectual disability, adulthood

[Abstract:0845]

0845 - Use of artificial intelligence from the perspective of child psychiatry

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The ability of artificial intelligence systems to extract information by extracting patterns from raw data is called machine learning. Machine learning allows to deal with problems involving real-world information and make subjective-looking decisions. It creates effective computing algorithms at the intersection of data and statistics aimed at learning relationships from computer science. Each piece of information contained in the representation of the data is called an attribute. An examination of relevant literature reveals that artificial intelligence based clinical decision support systems have been used in many areas of science, increasingly. The view that 'the realm of psychiatry is one of the least affected

areas by the use of machine learning' is no longer valid, but has been replaced by the idea suggesting how artificial intelligence based clinical decision support systems (CDSS) can be used to help clinicians' (1).

In the literature, there are studies examining the applicability of artificial intelligence based machine learning in many areas including, determining the best distinctive features of the assessment tools such as ADI-R, ADOS-2, M-CAHT, which are used in the diagnosis of Autism Spectrum Disorder (ASD); predicting stereotypical movements which are the main symptoms in ASD, by using different techniques; using the changes detected in the brain structure by magnetic resonance imaging (MRI), as biomarkers in the diagnosis of ASD and ADHD; the selection of appropriate drug therapy in neurodevelopmental disorders including ASD; determining the risk factors in perinatal and postnatal periods, which are likely to cause neurodevelopmental disorders such as ASD and ADHD; defining neurophenotypes in ASD; predicting the diagnosis of ASD from video footage and questionnaires at home and classification of autism based on logistic regression analysis; predicting possible lifelong health issues in ASD patients; diagnosis of ADHD; predicting risk of suicide attempt in adolescents; determination of the relationship between abnormal brain functional connections and psychopathology in children; diagnosis of childhood PTSD; differential diagnosis of various psychiatric diseases based on inflammatory parameters.

In addition, evaluation of treatment response and addiction are among the areas of use of artificial intelligence in child psychiatry. Studies on this subject demonstrate its applicability in many areas including the determination of the response to treatment in various psychiatric diseases; in the discovery and development of psychopharmacological agents by using brain imaging methods; identification of cognitive deficiencies in cocaine addiction by using standard tests and machine learning (2,3,4,5).

As a result, evaluation, diagnosis, and treatment processes for many diseases in psychiatry have been performed by using guidelines such as DSM-5 and ICD-10, which were formed by using widely accepted expert opinions rather than objective markers of the disease. Indeed, the pathophysiology underlying the definitions of diseases are extremely heterogeneous, and this picture is also reflected in the clinic. Artificial intelligence applications significantly limit existing heterogeneity by offering individualized assessment. In this way, it can have a natural potential to improve the well-being of psychiatric patients and creates an important field of study for future applications.

Keywords: artificial intelligence, psychiatry, machine learning, children, adolescent

[Abstract:0851]

0851 - Antidepressants Induced Apathy

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Apathy is characterized by an insidious decline in motivation and goal-directed actions, leading to flattened affect and decreased interest in a subject's previous social, recreational, occupational and creative pursuits with deleterious consequences for interpersonal relationships, occupational functioning and general health. A number of neurodegenerative, vascular, inflammatory, infectious and traumatic brain pathologies and psychotropic medication (antidepressants, antipsychotics) have been associated with the development of apathy, while it is also a component of the negative symptoms of schizophrenia and anhedonia associated with major depressive disorder.

Antidepressants especially selective serotonin reuptake inhibitors (SSRIs) are widely used in the treatment of major depression and anxiety disorders. They have reasonable efficacy with better safety and tolerability profile compared to older agents. However, they are not devoid of adverse effects. Some patients report that they experience a restricted emotional range and cannot get a normal emotional responsiveness to everyday events which is described as a behavioral and affective indifference. Also experience of apathy or emotional blunting, defined as SSRI-induced apathy syndrome is observed with the long-term of antidepressant treatment. This syndrome may be prevalent up to 50% of individuals on a SSRI/SNRI medication therefore clinicians should be aware of the signs and symptoms. It's a late-onset, dose-dependent, and reversible clinical condition. The ability to differentiate between apathy syndrome and treatment-resistant depression is important in order to choose treatment modalities.

Although the etiology of SSRI-induced apathy is largely unknown, some possible mechanisms have been proposed. Firstly, SSRIs may modulate frontal lobe activity via serotonergic systems. Alternatively, the SSRIs may influence serotonergic systems, which modulate midbrain dopaminergic systems projecting to the prefrontal cortex. Since there is a complex interaction between serotonin, noradrenaline and dopamine systems, activities exerted on serotonin or noradrenaline systems affect dopamine release. 5-HT_{2C} receptor plays a specific role as it phasically and tonically inhibits the basal electrical activity of dopaminergic neurons. Considering that the phasic activation of the dopaminergic system is associated with motivation and hedonia, serotonergic effects via the 5-HT_{2C} receptor may be particularly relevant in development of SSRI-induced apathy.

Apathy syndrome can occur in anyone receiving antidepressant therapy, but some individuals are at greater risk. At-risk individuals include men, individuals on SSRIs or SNRIs (usually for an average of 106.9 months), those taking benzodiazepines, having a chronic illness, and initially presenting with severe depressive symptoms.

Several pharmacologic agents can be used by individuals with apathy syndrome. Bupropion, modafinil, methylphenidate, anticholinesterase inhibitors, agomelatine and melatonin are generally recommended agents in treatment of antidepressant induced apathy. Early identification

and treatment (pharmacologic and nonpharmacologic) are essential to prevent associated distress and improved symptoms. At this oral session, the prevalence, differential diagnosis, neurobiology, assessment and treatment modalities of antidepressant induced apathy syndrome will be discussed.

Keywords: apathy, antidepressants, SSRI, side effects

[Abstract:0853]

0853 - Behavioral addictions in children and adolescents

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Behavioral addictions or the other name non-substance addictions, are a new category of addiction that is being discussed with DSM-5. Behavioral addiction involves the individual's uncontrollable strong urge to exhibit a certain behavior despite negatively affecting many areas of life and showing repeated behavioral patterns. No specific diagnostic criteria have been developed yet for behavioral disorder (except gambling disorder), and controversy continues for its classification. The literature clearly indicates the similarity of behavioral addictions to addiction to psychoactive substances. This similarity is due both to the phenotypic picture of both disorders and to the common mechanisms underlying them. Therefore, it is thought that substance addiction criteria can also be used for behavioral addictions. In a recent study, two inclusion criteria and four exclusion criteria are specified for the diagnostic criteria of behavioral addictions. Inclusion criteria; (1) It was defined as a significant functional impairment or (2) distress as direct consequence of the behavior and the persistence of the behavior over a significant amount of time. Exclusion criteria; (1) the behavior is not better explained by an underlying disorder (e.g., a depressive disorder or impulse-control disorder), (2) the functional impairment results from an activity that, although potentially harmful, is the consequence of a willful choice, (3) the behavior does not lead to significant functional impairment or distress for the individual and (4) the behavior is the result of a coping strategy. However, it is controversial two of these exclusion criteria that is the consequence of a willful choice and result of a coping strategy. Internet gaming disorder, compulsive exercise, compulsive buying, sexual addiction can be accepted as examples of behavioral addictions, although gambling disorder has only been recognized as an official psychiatric disorder. Additionally, The American Psychiatric Association included Internet gaming disorder (IGD) as a potential diagnosis and suggested further study to help clarify it more clearly. There are some researchers argue the criteria that are tried to be developed in adults may be insufficient in defining behavioral addiction in children and adolescents and should be handled within the context of the developmental period of children and adolescents. This situation indicates the difficulty of diagnosis in the child and adolescent groups and the need for the development of evaluation instruments according to age periods.

In this presentation, it is aimed to share up-to-date information about which behavioral addictions can be seen in children and adolescents, how often they are seen and which risk factors are detected in the development of behavioral addiction. Internet addiction, internet gaming disorder, social media addiction, smartphone addiction risk factors, treatment methods and preventive measures will be emphasized especially in children and adolescents.

Keywords: addiction, behavioral addiction, children and adolescents, gambling disorder, gaming disorder

[Abstract:0855]

0855 - Mixing bipolar episodes: a specifier or an independent entity?

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Mixed affective states are mood episodes characterized by coexistence of both manic and depressive symptoms, are complicated clinical manifestations of bipolar disorder (BD) that represent a challenge for clinicians at the diagnosis, classification, and treatment levels. The Diagnostic and Statistical Manual of Mental Disorders (Fourth ed., text revision; DSM-IV-TR) required the patient to meet criteria for both major depression and mania at the same time and the diagnosis of a mixed episode only applied to patients with BD type I [1]. These restricted criteria for mixed states caused that many patients who met the clinical criteria for this state were excluded from the definition of mixed states and

were finally labeled “BD unspecified”. In the DSM-5 the definition of “mixed episode” has been removed and replaced by the specifier “with mixed features” which means subthreshold and nonoverlapping symptoms of the opposite pole. This specifier has been also defined applicable for hypomanic, manic and major depressive episodes. Mixed states are common in BD, but the existence of different definitions affects the measure of their prevalence across different studies. For instance, using the DSM-5 “with mixed features” specifier may increase the prevalence of manic, hypomanic, or depressive episodes while decreasing the prevalence of “BD unspecified”. The prevalence rates vary from as few as 11% to as much as 78%, depending on the defining criteria [2]. It is aimed to provide an overview of defining the evolution, epidemiology, and clinical relevance of mixed affective states, with a view to support clinicians in resolving the different challenges associated with the implementation of this clinical presentation.

Keywords: bipolar disorder, mixed episode, with mixed features

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[Abstract:0859]

0859 - Antidepressant withdrawal symptoms

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Withdrawal symptoms are known to occur with tricyclic antidepressants, monoamine oxidase inhibitors, selective serotonin reuptake inhibitors (SSRIs) and miscellaneous antidepressants. A number of symptoms have been described, differing somewhat between antidepressant classes, and several symptom clusters or withdrawal syndromes appear to exist. The symptoms are commonly manifested within a few days after stopping the antidepressants, less commonly reducing the dosage. Withdrawal symptoms are expected to occur in 1 out of 2 patients discontinuing an SSRI or SNRI (1). The symptoms include both flu-like manifestation such as nausea, headache, light-headedness, chills, and body aches, and neurological symptoms such as paresthesias, insomnia, and “electric shock-like” experience. These symptoms typically resolve without specific treatment over 1–2 weeks. However, some patients do experience more protracted discontinuation syndromes, particularly those treated with paroxetine, and may require a slower downward titration regimen. It is usually recommended that slow tapering of antidepressants yields greater success in reducing withdrawal symptomatology. However, a small number of authors suggested that withdrawal syndromes are likely to occur with both abrupt and gradual tapering, with no significant advantage of the latter. Fava and the colleagues, who implicate there are no conceptual differences in term of withdrawal symptom among any group of psychotropics, promote a psychotherapy method called “Well-Being Therapy” in treatment of protracted withdrawal- emergent symptoms (2). Indeed, a group of authors agree on the fact that the term of “discontinuation syndrome” has been commonly used in guidelines and reviews, with the aim being to reinforce the conviction that these problems are devoid of important clinical implications and can be prevented by gradual tapering. In this presentation, it is aimed to address withdrawal syndrome of antidepressants and its management in different aspects.

Keywords: withdrawal, discontinuation, antidepressants

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[Abstract:0860]

0860 - Biological and clinical markers in eating disorders

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Eating disorders (EDs) are common psychiatric disorders that usually start during adolescence and show high chronicity (25%), require long-term treatment, and have high disability and mortality rates (10-15%). Biological, genetic and sociocultural factors are thought to be effective in the etiology. The role of biological and genetic factors have become increasingly important in recent years. In this writing, the main findings with regards to biomarkers in ED will be outlined.

In the literature, altered serotonin (5-HT) and dopamine (DA) systems have been described as possible biomarkers in ED. These are suggested to have a key role in the appetite control systems. Decreased 5-HT_{2A} binding has been found in both women with acute restricting anorexia and AN-BN, and also in those recovered from the illness. No differences compared to healthy subjects were evident in a group of BN patients. 5-HT_{1A} activity has been found to be increased in current AN, current BN, and recovered AN-BN groups. 5-HT_{1A} binding is higher in BN patients than in healthy subjects. There are changes in the amount of dopamine in individuals with AN. Frank et al. found higher dopamine D₂/D₃ receptor binding in women recovered from AN in the anteroventral striatum. This finding suggests that there is either a decreased volume of intrasynaptic dopamine or increased D₂/D₃ receptors density or affinity in AN.

Cytokines are signalling molecules, which play an important role in both immune system function and brain development and function. Cytokines, markers of inflammatory processes, have been found altered, and meta-analysis indicates a pattern of elevated tumor necrosis factor- α and IL-6 levels in ED patients especially in AN. It is proposed that IL-6 has the potential to be a state biomarker for AN. The complement cascade, a major component of innate immunity, represents a driving force in the pathophysiology of multiple inflammatory disorders. Some studies provides evidence of significantly decreased complement C3 levels in patients with AN, compared to healthy controls. Flierl et al. suggest that complement C3 levels might be a sensitive new biomarker for monitoring the severity of disease in AN. The oxytocin (OXT) impacts food intake as well as cognitive, emotional, and social functioning. Current findings suggest a role of the OXT system in the pathophysiology of AN. In individuals with BN, endogenous OXT levels were comparable to those of healthy controls, and exogenous OXT reduced food intake. Studies in other ED are lacking. However, genetic studies suggest a variety role of the OXT system in influencing ED pathology. Recent studies suggest that OXT represents a potential biomarker and treatment target for ED.

Although these advances in research have contributed to the understanding and recognition of neurobiological basis of ED, more research is needed to clarify the real effect of these findings in the long-term course of the illness. It is hoped that such a deeper understanding of ED based on biomarkers will improve awareness, early intervention and make for better prognosis in the long term.

Keywords: eating disorder, anorexia nervosa, anorexia nervosa, binge eating disorder, biomarker

[Abstract:0863]

0863 - Psychoneuroendocrinology and attention deficit and hyperactivity disorder

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Psychoneuroendocrinology is a rapidly growing field of research that studies biological and behavioral features in terms of the structural and functional relationship between endocrine system and the central nervous system (CNS) [1]. Although its roots date back to ancient times, it has become an important topic in psychiatry with the identification of many neurotransmitters, peptides and hormones. The etiology of attention deficit and hyperactivity disorder (ADHD) is multifactorial, complex, and likely involves interactions among genetic, epigenetic, and environmental factors. In the literature, different researches state different results about cortisol reactivity in children with ADHD. In a number of researches it is stated that children with ADHD have lower morning cortisol response, although other studies indicate that there is no difference between children with ADHD and controls in terms of cortisol levels. It is suggested that there is a relationship between significant increase in cortisol level after methylphenidate treatment and increased neuropsychological test performance in children with ADHD. There is also a relationship between maternal thyroid dysfunction, congenital hypothyroidism, and neonatal thyroid hormone disorders during pregnancy and ADHD. It is stated that maternal hypothyroidism, hypothyroxinemia and / or increased levels of thyroid peroxidase antibodies increase the incidence of ADHD in children and is associated with motor and executive dysfunctions and behavioral problems. It has also been reported that maternal hyperthyroidism is associated with ADHD in the offspring. In children with ADHD, hypo / hyperthyroidism is more common compared to healthy population. ADHD symptoms are detected in approximately half of these cases after thyroid dysfunction, and ADHD treatment does not affect thyroid functions. It is reported that attention problems are higher in children with subclinical hypothyroidism, and also TSH concentrations and slow cognitive tempo symptoms, emotional and behavioral dysregulation scores are positively related. Low T₄ and high TSH levels detected in children with ADHD are associated with poorer cognitive function and an increase in ADHD symptoms. It is stated that the higher prevalence of ADHD in men is the result of hyperandrogenism, and prenatal testosterone exposure increases the risk of destructive behavior disorder. Similarly, the incidence of ADHD increases in children of mothers diagnosed with PCOS (Polycystic Ovary Syndrome). On the contrary, there are also studies showing that there is no relationship between testosterone levels and ADHD, and the level of DHEA-S in ADHD patients is lower than healthy controls. The symptoms of ADHD tend to increase during adolescence in girls as a result of

estrogen causing an increase in dopamine receptors. In another study, it is stated that the levels of estrogen in children with ADHD are similar to controls, and a decrease in estrogen receptor level is detected.

In conclusion, psychoneuroendocrinology has an important role in etiopathogenesis, diagnosis and treatment of ADHD and in the follow-up period [2].

Keywords: Attention deficit and hyperactivity disorder, endocrine diseases, Psychoneuroendocrinology, psychiatric disorders.

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[Abstract:0865]

0865 - Complementary and alternative treatments in autism spectrum disorder

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Educational and behavioral interventions were mostly focused on the treatment of autism spectrum disorder (ASD). Psychotropic drugs are often used to treat basic behavioral symptoms, reduce incompatible behaviors and support learning and development. Many people want to learn alternative treatments because of the partial benefits in the main symptoms of ASD with the current treatments, the unknown etiology, the desire to have done everything for the child, concerns about the side effects that may occur with medications and the future. Complementary alternative medicines (CAM) are often described as applications and products are not considered as part of conventional western medicine. In studies, CAM is used in patients with ASD up to % 50-75 to improve symptoms, and the most commonly used CAMs in children are; modified / special diets (e.g. gluten-free, casein-free, sugar-free, lactose-free), vitamins / minerals (e.g. multivitamins, vitamin B6) and food supplements (e.g. omega-3 fatty acids, dimethylglycine). Parents often resort to alternative treatments with the desire to help their children with autism. However, alternative complementary treatments used in good faith are often ineffective, insecure, time-consuming and costly efforts for children with autism. CAM can also lead to restrictions and divergences on more effective behavioral and educational treatments. In the researches, it was observed that most of the parents who used CAM did not share this situation with their doctor when they applied to the clinics. Parents refrain from sharing this situation because they believe that doctors can be biased about CAM or that they do not have enough information about it. For this reason, it is important for physicians to have sufficient knowledge about CAM and to guide families appropriately. When we scan the literature, we can see that there are some complementary alternative treatments that are recommended. These treatments are melatonin (sleep problems), n-acetylcysteine (irritability), digestive enzymes and probiotics (gastrointestinal complaints) and camel milk. There are also some alternative treatments that are not recommended such as chelation, hyperbaric oxygen therapy, secretin, gluten-free / casein-free diet, IVIG and B6-Mg. Acupuncture, yoga, massage, music therapy, riding therapy, neurofeedback, ketogenic diet, multivitamin supplement, D-vit, C-vit, dimethylglycine, L-carnosine, oxytocin, tetrahydrobiopterin, B-12, folate, ginkgo-biloba and omega- 3 fatty acids are also used as alternative treatments but there are a lot of doubt about them.

In conclusion, we should definitely ask parents of children with ASD whether they use complementary alternative treatments or not. Doctors who working on this subject should have sufficient information and inform their families about the positive / negative situations that may occur. Complementary alternative treatments should not prevent educational and behavioral treatments.

Keywords: Autism, complementary, alternative, treatment, vitamin, diet

[Abstract:0871]

0871 - Towards individualized treatment in bipolar disorders: predictors of lithium response; biochemical predictors of lithium response

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Bipolar disorder is a chronic mental illness that causes severe disability. In the treatment of the illness, mood stabilizer drugs are used, which are proper for episodic nature of disorder. The mood stabilizer lithium has been considered the gold standard pharmacological treatment for BD for over 60 years. Lithium was found to be effective in treating both acute manic and depressive episodes, as well as in reducing the recurrence of mood episodes. It is also known to reduce the risk of suicide attempt in patients with bipolar disorder. However, it does not show its effectiveness up to the mark in every patient. Studies show that between 17% and 30% of BD patients respond well to lithium treatment, while the remaining patient group remains partial response or unresponsive. It is recommended to treat BD patients responding well to lithium as a separate clinical profile according to their clinical and biological characteristics compared to other bipolar disorder patients.

Many biochemical factors can be used to predict the effectiveness of lithium. Studies to detect a biomarker to predict lithium treatment response began with red cell lithium levels. After hematologic results, many biochemical parameters and processes such as brain lithium level, neurotransmitters, hormones, oxidative stress, inflammation, HLA loci, cytokines, neurotrophins, metabolomics are being investigated in order to evaluate the lithium response. Although studies continue on a wide spectrum, it is difficult to say that a satisfactory biochemical marker has been achieved so far.

In this session, opinions about biochemical findings that can be used to predict lithium response will be conveyed and it is aimed to provide a discussion platform for research in this area.

Keywords: Bipolar disorder, Lithium, treatment response, biochemical marker

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[Abstract:0873]

0873 - Sted-scit: gaining insight into attitudes and knowledge gaps among school counsellors in Turkey

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In this talk, Stigma and Treatment ED in School Counsellors in Turkey study will be discussed. Turkey is one of the most youthful countries, and all eating disorders ED are increasing in Turkey. School counselors should be knowledgeable and aware of ED. It is of great importance for children and adolescents to have early diagnosis, support, and treatment and not to be stigmatized by the community. According to the results of our study, although counselors can diagnose cases of ED at a high rate, their level of knowledge needs to be increased. Anorexia nervosa is an ED that they are most familiar with but have the lowest level of knowledge. In the treatment of ED, the importance of collaboration with the family is not adequately understood. The fact that teachers do not regard anorexia nervosa as a severe biological disease contributes to reduce the stigma. It is essential to support the students by increasing their role in the diagnosis, follow-up, and treatment of ED.

Keywords: School counseling, Stigma, Treatment, Eating Disorders

[Abstract:0875]

0875 - Psychoneuroendocrinology and autism spectrum disorder

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The etiology of autism spectrum disorder (ASD) is multifactorial, complex, and likely involves interactions among genetic, epigenetic, and environmental factors. With respect to environmental influences, a growing literature implicates intrauterine experiences in the origin of this pervasive developmental disorder.

Genetic disorders and pathophysiological conditions, including maternal hormonal disturbances, contribute to changes in the hormonal milieu and the neurodevelopmental abnormalities of the developing fetus. In this context, sex-steroid hormone-related genes and their polymorphisms involved in testosterone metabolism have been correlated with autism, along with the production of autoantibodies to fetal brain, through the breakdown of the maternal immune tolerance. (1)

Several lines of evidence suggest a role for androgens in the etiology of autism, presumably exerted during prenatal brain development: (1) The prevalence of autism in men is three to four times higher than in women. (2) In a normal population, some of the characteristic features of autism — such as low empathizing and enhanced systemizing — are more common in males; regarding this aspect, subjects with autism may hence be described as having an “extreme male brain”. (3) Elevated prenatal androgen levels have been associated with autism-related traits and an indirect measure of fetal androgen exposure (assessment of the ratio between the second and fourth digit) suggests elevated fetal testosterone levels to be associated with both autism and autism-related traits. (4) Girls with congenital adrenal hyperplasia, a trait associated with exposure to high prenatal androgens, display autism-like traits to a higher extent than their unaffected sisters.

Similarly; the available evidence suggests that women with PCOS have increased odds of having a child with ASD.

Although the relationship between prenatal androgen exposure and androgen production at adult age is unclear, studies providing preliminary support for the notion that autistic traits are associated with enhanced serum levels of testosterone may also be interpreted as support for the notion that autism is indeed associated with enhanced androgenization. In the same vein, one study reports testosterone-related disorders to be more common in women with autism compared to healthy controls. (1)

It has been proposed that maternal hypothyroxinaemia during pregnancy may increase the risk of autism in the offspring. Similarities may exist between the changes in brain structure caused by low levels of maternal thyroid hormones during early brain development and the neurodevelopmental abnormalities in ASD. However, in some studies, it is reported that the risk of ASD is similar to children of euthyroid mothers. (2)

There was no relationship between TSH levels in the newborn period and ASD. However, the relationship between thyroid hormone levels at birth and specific subtypes of ASD, particularly ASD with developmental regression, may need more studies to be illuminated. It is known that fetal cortisol exposure predicts ASD and HPA dysfunction in the prenatal period increases the risk of ASD. HPA axis dysregulation is also reported in children and adolescents with ASD. On the other hand, it is suggested that patients with ASD are similar to the controls in terms of 'cortisol awakening response'. (3)

Keywords: extreme male brain, intrauterine, maternal hypothyroxinaemia, HPA dysfunction, cortisol awakening response

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[Abstract:0919]

0919 - Pre-psychotic phase in adolescence: neurobiology, attachment, and psychopharmacology

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Psychosis is a clinical syndrome which includes various symptoms and is related with numerous psychiatric disorders. This clinical syndrome starts with a presymptomatic or premorbid phase which is high risk but asymptomatic and continues with a prodromal phase in which diagnostic psychotic symptoms do not emerge, nonetheless unspecific sub-threshold symptoms are present¹. While negative symptoms such as poor concentration, energy decrease, withdrawal occur generally and predominately during the early phases of prodromal period; symptoms such as sleep disorders, irritability, anxiety can be observed during this period². The period which includes premorbid and prodromal phases is defined as the pre-psychosis period³.

Due to the excessiveness of the neurobiological degradation and apparent problems in functioning in consequence of the psychosis, early diagnosis and intervention is of significance in this disorder⁴. Prodromal period is important for the early phase intervention; nevertheless, difficulty in diagnosis occurs due to the fact that it has insidious early period and shows mostly negative symptoms. Furthermore, the symptoms, which emerge in the prodromal period including sub-threshold psychotic symptoms, frequently seen in general population, more in particular adolescents and young adults, is another difficulty faced².

Consequently, since these symptoms are not pathognomonic, prodromal period becomes disputable. While non-pharmacologic treatments can be easily implemented in this period, there is no consensus on the implementations of the routine psychopharmacology⁵. The use of medications should be discussed in terms of the relief symptoms, the prevention of the progression of psychosis and the stigmatization of the disorder.⁶

Keywords: psychosis, pre-psychosis, pharmacology, risk syndrome

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[Abstract:0921]

0921 - Rethinking psychosis: attachment and psychosis

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Attachment is a stable and lasting psychological link formed between individuals and important others in mutual communication that has been described in early childhood.¹ Attachment theory proposes that early relationships with significant others have a significant impact on later interpersonal relationships and form internal working models consisting of mental representations of the self and others and relationships with others.^{1,2} Supporting the theory researches suggest that attachment bonds during infancy are to be major determinates of later mental health and attachment style predicts social functioning, interpersonal difficulties and psychopathology.² Given the importance of attachment to interpersonal functioning and psychopathology, literature highlight associations between attachment problems and the development of psychotic disorders.³ Insecure attachment caused by damaging experiences to attachment are proposed to be relevant to paranoia due to fostering negative beliefs about the self and others develop impacting ability to trust others. Insecure attachment thus is thought to be an important factor influencing paranoia in the context of psychosis by promoting negative beliefs of self and others and by increasing negative affect, interpersonal sensitivity, and/or social withdrawal.^{4,5} These factors all increase vulnerability to paranoid thinking and have all been identified as key mechanisms implicated within models of paranoia and persecutory delusion formation. Given the proposed associations between attachment and psychosis suggested by theory and research, it was aimed to discuss this relationship in this session.^{6,7,8}

Keywords: Attachment, Psychosis, Early Relationships

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[Abstract:1065]

1065 - Trans- disciplinary new maudsley online workshops for parents of young people with eating disorders– collaborative care in CAMHS during a global pandemic

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ABSTRACT

BACKGROUND AND AIM:The New Maudsley model is a collaborative caring approach to support parents of young people with eating disorders (Treasure et al, 2009). Caring for a young person with an eating disorder is difficult and stressful. Young people may resist treatment, lapsing and relapsing can lead to high expressed emotion and carer burden, which affects outcomes. The New Maudsley model is based on principles of motivational interviewing, role modelling compassionate communication and empathy, to improve self-esteem and confidence in young people so change can occur. This study aimed to evaluate the efficacy of adapting the New Maudsley model, in two CAMHS settings, during Covid -19 global pandemic.

METHODS:In CAMHS clinic A, four parents attended six weekly two hour workshops, via Attend Anywhere tele- health platform. Trans- clinic workshops (A and B) were offered six months later to eight parents via Webex. Caregiving Skill Scales (CASK) and Eating Disorder Symptom Impact Scales (EDSIS) were completed by parents at baseline and post-treatment. Qualitative analysis was employed to evaluate the overall treatment effects

RESULTS:All parents who commenced the online workshops, reporting lack of self-care, communication challenges and anxiety. Following workshops in clinic A, two parents reported that more time and simplified content. was required to engage in workshops. Pre- trans clinic evaluation noted themes of self -blame and self -criticism in relation to recognising and managing symptoms. Post- trans clinic evaluation noted improvements in parents self -care and communication skills.

CONCLUSIONS:Results from two workshops provide new learning for adapting the New Maudsley in CAMHS. Clinicians reflected on strengths and challenges on group facilitation. Specific adaptations are required to support group participation in disadvantaged communities. Incorporation of the New Maudsley workshops has the potential to enhance recovery outcomes for young people with eating disorders.

Keywords: New Maudsley, collaborative caring, eating disorders, tele-health, carer burden.

[Abstract:1098]

1098 - Forensic problems in children with substance use disorders

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In recent years, the increase in substance use and various types of addiction in children stands as an important public health problem. As a result of this, children enter the judicial system more frequently as offenders and victims. Substance use is common in children in prisons and in children who require forensic psychiatric evaluation. In children and adolescents, violent behaviors such as carrying a gun, fighting, running away from home, having unprotected sexual intercourse at an early age, academic failure, and self-harming behaviors were found to be associated with substance use. The prevalence of tobacco, alcohol and substance use among delinquent adolescents is quite high when compared to other populations of the same age. It was determined that approximately 1/3 of these children were under the influence of substances while committing a crime. The age of onset of crime is lower and the rate of repeated crime is higher. At the same time, alcohol and substance use is more common in these children, not only in themselves, but also in their parents and family members. When working with juvenile delinquents, it is important to evaluate substance abuse and provide psychosocial support to children and families.

Keywords: substance use, forensic psychiatry, children

[Abstract:1151]

1151 - The pathophysiology of attention deficit hyperactivity disorder from the perspective of inflammation

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Attention deficit hyperactivity disorder (ADHD) is characterized by inattention, hyperactivity, and impulsivity, and may show clinical heterogeneity with variable symptoms depending on gender and age. Neurobiological studies have reported decreased cortical thickness and delayed cortical maturation in ADHD. However, the connections between genetic and environmental factors and neuronal processes and their reflections on the clinical phenotype are still not known enough. According to the current literature, it has been suggested that inflammation affects brain development and subsequently plays a role in ADHD pathophysiology through mechanisms such as glial activation, increased oxidative stress, abnormal neuronal connection, decreased neurotrophic support, and altered neurotransmitter function. Moreover, there is evidence that the inflammatory response can affect various neurotransmitter systems, including dopaminergic transmission, which is prominent in ADHD. It is stated that children with ADHD have minimal central nervous system damage, either latent or overt, in the perinatal period. This damage can be caused by dysregulation of inflammatory processes. Identified risk factors for ADHD, such as maternal smoking, infection, obesity, and alcoholism, may trigger fetal neuroinflammation by causing an increased maternal inflammation during neuronal development. Inflammatory markers in ADHD have been extensively studied, because it has been found that the inflammatory response causes symptoms similar to ADHD, such as impaired cognitive functions, and ADHD is associated with inflammatory and autoimmune diseases such as atopic dermatitis, rheumatoid arthritis, asthma, hypothyroidism and type 1 diabetes. In a postmortem study, it has been shown that the subcortical volumetric reductions seen in childhood ADHD cases are significantly correlated with the gene expressions involved in apoptosis, oxidative stress and autophagy. GWAS studies have identified associations of ADHD with genes involved in the regulation of gene expression, cell adhesion and inflammation, and the IL-1RA gene. In human studies, high levels of IL-2, IL-5, IFN gamma, IL-10 and TNF beta were found in both the peripheral circulation and cerebrospinal fluid samples of individuals with ADHD. Also, it was showed that patients using methylphenidate had lower cytokine levels than drug naive patients. In addition to the modulation of the central immune system, cytokines released from peripheral immune cells are known to cross the blood brain barrier. Theoretically, all immune system mediators may play a role in the development of ADHD. However, in most of these studies, the levels of inflammatory cytokines were measured in the peripheral circulation, and it was reported that the cytokines evaluated in the studies varied and the changes in their levels were not consistent. In animal studies examining neuroinflammation, TNF alpha, IL-1 beta and IL-10 levels decreased in the prefrontal cortex, cortex (other regions), striatum and hippocampus, while IL-1 beta, MCP-1, RANTES and IP-10 levels in serum samples increased at postnatal 5th week, and were similar to controls at postnatal 10th week. The results of these studies suggest that there is a dysregulation of inflammatory signaling pathways in the brains of ADHD patients. In conclusion, although some human and animal studies have reported that neuroinflammation is involved in the pathogenesis of ADHD, this relationship has not yet been clarified.

Keywords: attention deficit hyperactivity disorder, cytokines, inflammation

[Abstract:1157]

1157 - Guanfacine extended release for the treatment of patients with attention deficit / hyperactivity disorder

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Attention deficit-hyperactivity disorder (ADHD) is a considerably common neurodevelopmental disorder among children with worldwide prevalence of 5.9–7.1%. Stimulant medications [methylphenidate (MPH) and amphetamine (AMPH)] are proven efficient in the treatment of ADHD; but they have considerably large side effect profiles, high discontinuation rates (reaching almost 15%) due to these side effects and 20–35% of subjects in clinical trials show inadequate response to initial treatment. Thus, alternative non-stimulant medications gained interest and guanfacine instant release -originally developed for the treatment of hypertension- was found effective in regulating attention through its pharmacological activity in prefrontal cortex pathways with fewer adverse effects than other less specific α_2 -agonists (such as clonidine). These positive outcomes led to the development of guanfacine extended release (GXR) which was later approved by Food and Drug Administration for the treatment of ADHD in 2009. All of the short-term trials which compared the effectiveness of GXR with placebo showed significantly higher efficacy for GXR in ADHD treatment. On the other hand, trials comparing MPH/AMPH and GXR found that efficacy of GXR was lower and discontinuation rates due to adverse effects was higher than stimulants; however, they stated that GXR might be an appropriate alternative for patients who do not tolerate AMPH or MPH due to the side effects like decreased appetite, insomnia and tachycardia. GXR may also be a preferred if there is an ongoing stimulant abuse in the patient or a family member living with the patient. Also flexible dosing time is another major advantage of GXR. GXR may be preferred to other non-stimulants; in a trial comparing GXR to atomoxetine (ATX) and placebo, GXR subjects had larger reductions on the ADHD-IV-RS than the ATX subjects. Recent meta-analyses comparing safety and efficacy of the stimulants and non-stimulants report that GXR is more effective than ATX; but has higher incidence of all-cause withdrawals. Furthermore, combination of GXR + stimulants is found effective in subjects with inadequate response to stimulants and the drugs may mitigate each other's side effects. Evidence on GXR use in the treatment of adulthood ADHD is scarce; one randomized controlled trial (which is the only one conducted in this aspect) tried GXR + stimulant combination on the adult ADHD patients who partially responded or did not respond to stimulants and found no difference between GXR + stimulant and placebo + stimulant combination groups. Even though majority of the evidence based guidelines do not include GXR in the treatment modalities of adult ADHD, NICE is the only one that recommends GXR medication in adult ADHD but only with the advice of a tertiary ADHD treatment service. In conclusion, effect size of GXR is not as great as stimulants and its side effect profile, although different from stimulants, is not small either. This urges the still unmet need for drugs; which are as potent as stimulants with fewer side effects.

Keywords: attention deficit hyperactivity disorder, guanfacine, treatment

[Abstract:1160]

1160 - Comorbidities and treatments in child and adolescent substance abuse

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Psychiatric comorbidity in substance use; substance-induced psychiatric disorders and psychiatric disorders that cause/go together with substance use disorder. Acute and chronic consequences or withdrawal from alcohol, nicotine and substance use may lead to different psychiatric pictures. The presentation will focus on co-morbidities and treatment of substance use disorders. The coexistence of substance abuse and psychiatric disorders associated with more than one psychosocial problem hinders the treatment process. This is not unexpected because substance use by itself has a negative impact on normal cognitive, emotional, and social development. Treatment of existing psychiatric diseases or co-occurring with substance use becomes more difficult due to treatment incompatibility, educational and social disruptions. The prognosis worsens, the age of onset of psychosis and mood disorders is brought forward, suicide attempts and completed suicides may increase. Problems such as violence, aggression, involvement in crime, and being a victim of trauma may come to the fore. Possible physical health problems also precipitate and contribute to all these social and mental problems. Attention Deficit Hyperactivity Disorder, Psychotic Disorders, Mood Disorders, Anxiety Disorder, Post-traumatic stress disorder, sleep disorders, specific learning difficulties, conduct disorder, borderline-narcissistic-antisocial personality, eating disorders are common comorbid diagnoses. While the 'co-treatment' method is currently used in the presence of comorbidity, there are cases where 'sequential treatment' should be used. Psychopharmacological agents should be used carefully with a holistic evaluation and approach.

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Keywords: Addiction, Child and Adolescent, Comorbid Psychiatric Disorders, Substance use

[Abstract:1161]

1161 - Neurobiological approach to prodromal psychosis

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Pre-psychosis is a very current and debated area in terms of its definition, management and possible treatment approaches. Studies are generally aimed at finding a neurological, cognitive, genetic or chemical marker that separates people in prodromal psychosis from healthy ones or predicts transformation into psychosis. Although different results have been obtained in studies, changes in hippocampus volume and function, dorsolateral prefrontal cortex and inferior frontal cortex functions are prominent differences in functional imaging methods (1). There are studies showing that cognitive functions such as working memory, sustained attention, verbal and visual memory and attentional switching are also impaired in the prodromal period (2). When looking at neurochemical markers, there are studies on striatal dopamine function and brain metabolites such as NAA (3,4). In this panel, the current literature information in this research area that can contribute to the neurobiological explanation of psychosis and tries to understand psychosis and its course in the prodromal period will be discussed.

Keywords: Neurobiology, Prodromal Psychosis, Prepsychosis

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[Abstract:1166]

1166 - Current family education programs, school and community studies in autism spectrum disorder

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Having a child with a diagnosis of Autism Spectrum Disorder (ASD) has a significant impact on family functioning and causes more parental stress compared to other special needs diagnoses(1). Because of emotional hypersensitivity in the child, daily life routines such as leaving home, going

shopping or going to a restaurant, taking the child to the hospital for dental treatment or another health problem can be very difficult for parents due to excessive attachments to routines(2)

It is seen that there has been an increase towards studies about parent education in ASD in the literature recently. As a result of parenting training, it has been shown that positive results emerge in personal, social and educational areas for the child with ASD and his family. In most of the programs, it is seen that there are studies to develop playing skills of children, to ensure their socialization, to increase their communication skills and to ensure behavioural adaptation. In consequence of parent training programs; positive effects such as decrease in anxiety in parents, increase in coping skills, improvement in parent-child interaction, better understanding of ASD, and improvement on life quality of parents have been found. Wong et al. reviewed studies published for parent education between 1991 and 2011. As a result of the study done, they stated that family-centered interventions can be used effectively in children with ASD from their birth to 11 years of age in social area, communication, joint attention, cognitive daily routines, school readiness, academic skills, adaptation skills and coping with problem behaviours(3) On the other hand, according to the results of 30 studies examining education programs for parents of children with ASD, it has been stated that; a significant part of the training program targets behavioural or communicative techniques; the majority of the participants were mothers; 87% stated that their parenting skills increased at the end of the program; 83% stated that they acquired the targeted skills for their children. It has been observed that there is an increase in spontaneous speech, age-appropriate behaviour, playing and social skills, and a decrease in destructive behaviours and adaptation problems in children. When the findings of the studies about families in Turkey are examined; it has been reported that most of them feel a lack of knowledge about ASD although the needs of families vary from each other (4). It is highlighted that these information requirements concentrate on the topics such as characteristics of children of families, behavioural problems, legal rights, social support, psychological counselling and guidance, etc. Children with ASD experience various problems in education as well as in all areas of life. In addition to reading, writing and math problems, executive function disorders also cause these difficulties (5). Interventions are needed to improve executive functions for academic success in individuals with ASD (6). However, there is not yet an evidence-based intervention program which is special for school life of individuals with ASD.

Keywords: Autism Spectrum Disorder, Parenting, Parent Education Programs.

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[Abstract:1167]

1167 - Introduction to psychoneuroendocrinology and its relationship with psychiatric disorders

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Psychoneuroendocrinology is a rapidly growing field of research that studies biological and behavioral features in terms of the structural and functional relationship between the endocrine system and the central nervous system (CNS) [1]. Although its roots date back to ancient times, it has become an important topic in psychiatry with the identification of many neurotransmitters, peptides, hormones and studies in molecular biology. In recent years, hypothalamic-pituitary pathway hormones, neuropeptides and neurotransmitters which play an important role in the pathophysiology and etiology of many psychiatric disorders have been investigated. In this context, hypothalamic-pituitary axis plays a prominent role in further understanding of the psychopathologies [2]. Hypothalamic-pituitary-adrenal (HPA) axis is important in controlling

reactions to stress and maintaining homeostasis. HPA axis dysregulation that occurs as a result of chronic stress may cause many physical illnesses and mental disorders and/or affect the prognosis and treatment processes in these diseases. Several studies have reported that the changes in HPA axis hormones, such as CRH, ACTH and cortisol [3]. Additionally, corticosteroids which are used to treat many conditions can cause mental problems. It is also known that thyroid hormones affect gene expression during brain development and maturation. Hypothyroidism can lead to severe intellectual disabilities and cretinism during the stages of prenatal and early developments, and mood disorders and cognitive dysfunctions in adulthood. In psychiatric disorders, thyroid functions are generally normal, however thyroid diseases and/or dysfunctions are presented in many researches. A wide range of psychiatric symptoms and signs are encountered in hypothyroidism and hyperthyroidism. The hypothalamic–pituitary–somatotrophic (HPS) axis is particularly associated with cognition, mood, and memory. Exposure to severe stress (neglect, abuse, maternal deprivation) leads to functional GH deficiency. In addition to growth retardation and developmental delay, aberrant eating, sleep disturbances, behavioral problems, delayed language development and mental retardation are also common in this case. This situation, which is defined as 'psychogenic / psychosocial dwarfism', is generally observed in 2-3-year-old children and can be improved with appropriate environmental regulations. Gonadal steroids have organizational and activational effects on CNS. Studies have focused on the relationships between testosterone and disruptive behavior disorders as well as estrogen and prosocial behavior. Dehydroepiandrosterone and its sulfate form levels are investigated in disruptive behavior and mood disorders. Oxytocin is considered a key hormone for parent-child relationships. Many studies have emphasized its role in neurodevelopmental disorders such as ADHD and ASD. Prolactin is associated with parental care and appears to be important in bonding between parent and infant. In conclusion, in the field of psychoneuroendocrinology, researches are conducted for the purpose of investigating important effects of endocrine factors on the development of the nervous system, cognitive and/or behavioral abnormalities in endocrine disorders and neuroendocrine changes in psychiatric disorders. Psychoneuroendocrinology has an important role in both the etiopathogenesis, diagnosis and treatment of psychiatric disorders and in the follow-up period of endocrine diseases [1,2].

Keywords: Central nervous system, endocrine system, psychiatric disorders, psychoneuroendocrinology, relationship.

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[Abstract:1169]

1169 - Akathisia

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Since it was defined at the beginning of 20th century, akathisia has been a diagnostic challenge for neuropsychiatrists. Akathisia is a movement disorder and a serious side effect of antipsychotic medication. It not only disrupts the patient's adherence and compliance to the treatment, it also complicates diagnosis. In severe cases, akathisia may lead to suicidal and homicidal behavior. Therefore; it should be recognized and treated as early as possible.

There is currently no biological marker for the diagnosis of akathisia. The only diagnostic characteristic is the subjective feeling of restlessness reported by the patient which can sometimes be observed from outside as uneasy movements of the extremities. Akathisia is frequently overlooked by clinicians. Akathisia in a patient can be misdiagnosed as anxiety, agitation, an exacerbation of the psychiatric illness, a tic disorder, some other form of extrapyramidal effect of the medication or a restless leg syndrome. Thus, probing for akathisia is an important point in the management of patients on antipsychotic medication.

Different forms of akathisia have been defined such as acute/chronic akathisia, pseudoakathisia, tardive akathisia, and withdrawal akathisia. However, such a distinction may not be practical since boundaries between these forms are vague and do not have an etiological background. Although first generation antipsychotics are well-known to cause akathisia it should be kept in mind that second-generation antipsychotics and SSRIs can also be the reason for such a problem in the individual patient. The pathogenetic mechanism of akathisia has not been understood. Dopaminergic blockade by the antipsychotic drugs in the nigrostriatal pathway has been suggested as a possible explanation, however, there are also studies investigating other pathways and central or peripheral dopamine receptors.

Treatment of akathisia is complicated and there is no clear algorithm in the treatment of akathisia. A wide variety of drugs including anticholinergics, benzodiazepines, alpha-2 agonists, beta-blockers, dopamine agonists, clozapine, iron, serotonin 5HT_{2A} antagonists, Vitamin

B6, N-Acetylcysteine, Tetrabenazine, Piracetam, Buspiron and opiates have been recommended. Nevertheless, evidence for the efficacy of these drugs mostly come from case series and case reports. Thus there is a lack of knowledge for the effective treatment of akathisia.

To summarize; akathisia is a clinical problem that has been only considered as a part of the side effect profile of a given drug in drug studies. However, as a highly disabling condition it has to be put under serious investigation.

Keywords: Agitation, Akathisia, Anticholinergics, Antipsychotic, Benzodiazepines, Movement disorder

[Abstract:1170]

1170 - Practical considerations: evaluating the cardiovascular system in youth with Anorexia Nervosa

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Cardiovascular abnormalities are often common incidental findings in youth with eating disorders and reflect the body's attempt to compensate for lower blood volume, poor nutrition and energy conservation. Whilst most are fully reversible upon nutritional restoration for a small number of youth, these are potentially fatal. Clinicians managing eating disorders in youth need to be cognisant of cardiovascular compromise and conduct a thorough cardiac review and examination.

Key learning Points:

- *Children generally are in an intense anabolic state, which is often further increased in youth with an eating disorder
- *Essential cardiovascular examination includes standing and lying HR and BP.
- *Bradycardia and low BP are common findings in youth with Anorexia Nervosa.
- *Most cardio-vascular changes seen in youth with an eating disorder are compensatory and resolve with nutritional restoration. Abnormalities in HR are a better clinical indicator than changes in BP.
- *Additional risk factors include (i) excessive exercise, (ii) medications including lpecac, SSRIs and anti-psychotics (iii) purging and (iv) severe fluid restriction

Keywords: Cardiovascular, assessment, anorexia nervosa, AN

[Abstract:1172]

1172 - When should we start clozapine? Is there an exact time?

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Clozapine is the most effective antipsychotic in the treatment of treatment-resistant schizophrenia (TRS) currently. TRS affects up to 33% of those with schizophrenia. Up to 60% of these patients respond to the treatment, and it has been shown to improve aspects of cognition and quality of life and reduce suicide attempts with clozapine use. Despite its long clinical success, clozapine is associated with several problems, including metabolic syndrome, diabetes, seizures, agranulocytosis, myocarditis, and intestinal obstruction.

Even with its efficacy, clozapine use tends to be underutilized due to concerns regarding these side effects, patients' attitudes toward treatment, and psychiatrists' lack of experience in prescribing. Agranulocytosis is a rare but severe side effect of clozapine; hence at least weekly white blood cell and absolute neutrophil counts are required for the first weeks and months of clozapine in treatment to detect agranulocytosis timely manner. However, the patients may be refusal to blood monitoring very frequently, and it could be restricting clozapine use.

Clinicians could be uneasy about initiating the treatment, as stated in studies. According to clinical guidelines, patients who have not responded to two antipsychotic drugs, at least one of which is a second-generation antipsychotic, should be prescribed clozapine. Nevertheless, some studies have suggested that clozapine should be used after patients fail a single antipsychotic therapy without delay. Even some authors have suggested that clozapine should not be the last resort; conversely, it should be the first choice. Studies observed that the time between becoming eligible for clozapine treatment and starting it ranged from 19.3 weeks to 5.5 years, with some psychiatrists lean toward prescribing antipsychotic polypharmacy or higher doses than to prescribe clozapine. This delay is probably due to doctors' lack of experience with side effects and concern

about manage them. However, delayed initiation may be related to inadequate response in schizophrenia. Clinicians should know that they will not encounter severe side effects and should feel more competent to start clozapine by knowing how to manage those side effects if there is to occur any at all. Clinicians should regularly ask about constipation and sialorrhea and monitor vital signs for hypotension, tachycardia. Neutrophil count monitoring refers to the schedules is recommended. Weight gain and treatment-emergent diabetes can be shared, so these should be followed.

While TRS is the most prevalent use for clozapine, it is also approved in some countries for Parkinson's disease psychosis, Huntington's disease chorea, treatment-intolerant schizophrenia, and recurrent suicidal behaviours in schizophrenia and schizoaffective disorder. Clozapine is unique in its proven suicide prevention effect than other antipsychotics. It has been noted that clozapine may be preferred in comorbid substance use in schizophrenia as regards it could have an anti-craving effect. Additionally, it is commonly suggested that a switch to clozapine in the cases of tardive dyskinesia.

To conclude, clozapine has consistent evidence supporting its efficacy and safety, much less known about when exactly it should be preferred first. Clinicians should become advocates of clozapine when indicated, given the long-standing data that it reduces morbidity and mortality in psychiatric illness.

KEYWORDS: Clozapine, schizophrenia, treatment-resistant schizophrenia, antipsychotics, side-effects

[Abstract:1174]

1174 - Navigating social/emotional interactions through spy themed groups for children– evidence of impact in an Irish outpatient child & adolescent mental health service (camhs)

Deirdre Mac Evilly, Geraldine Brosnan

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Keywords: SAS, CAMHS, social communication, emotional regulation

[Abstract:1179]

1179 - Demonstrating the need for speech & language therapy within a camhs approved centre - a quality initiative

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Objectives: Research supports a long standing association between children's communicative competence and their mental health. There is a high incidence of communication difficulties in young people with mental health difficulties (Cohen et al., 2013). 81% of children with social, emotional and mental health needs have significant unidentified language deficits (Hollo et al., 2014).

Linn Dara Approved Centre is an Irish Health Service Executive funded, and run service. It is a 24 bed CAMHS in-patient setting which is divided into three units (two 11-bed units and one high dependency unit). We provide acute, emergency and specialist inpatient child and adolescent mental health services on a tertiary basis to young people presenting with a range of mental health presentations (such as anxiety, depression, self-injury, psychosis, eating disorders). Prior to onset of pandemic one speech & language therapist worked in the Approved centre and saw young people on an MDT-referrals only basis (approximately 40% of admissions).

This service quality improvement initiative sought to:

1. Carry out an analysis of the communication needs of a cohort of young people admitted to this unit during a particular time period
2. Evaluate the need for speech & language therapy input in a CAMHS Approved centre.
3. Enhance MDT assessment and formulation through the effective screening of young people's social communication, speech and language skills.
4. To inform further development of a needs-based, service user centred therapeutic SLT programme in the Approved centre and community CAMHS
5. To contribute to the evidence base of the role of Speech & language therapy in CAMHS and adult mental health service

Methods: An additional speech & language therapist was redeployed to the approved centre in March 2020 to assist with pandemic related infection control measures, enabling one speech & language therapist to be based on each unit. A total of thirty nine new and existing admissions to the two general units in Linn Dara Approved centre over a four-month period, (April –July 2020) were screened for communication strengths and needs, using a range of formal and informal assessment tools. These young people were aged between 12 and 17, and length of admission ranged from two weeks to 10 months.

A clinical interview with the young person was carried out, which informally probed language comprehension, expressive skills, speech development, social communication and assertiveness. This was followed by a detailed developmental history and completion of some social communication checklists with parents over the phone.

The language skills of a proportion of these young people were formally assessed using the Clinical Evaluation of Language Fundamentals Fifth edition (CELF 5). It was not possible to formally assess the language skills of all of these young people. The decision to administer formal language assessment was made in conjunction with the consultant psychiatrist and was primarily determined by the person's mental state and willingness to engage.

Social communications skills were assessed informally using a prompt sheet which was created by the speech & language therapy team. This prompt sheet probed a range of communicative skills such as non-verbal communication (eye contact, facial expression), conversational skills (young person's ability to initiate, participate and terminate conversations appropriately) and assertive communication skills (express emotion, seek clarification, provide explanation, negotiate). The young person's participation and social communication skills were also observed in the therapeutic group programme.

Each assessment was written up in the clinical file, and results for each young person recorded on separate database by the therapist. At the end of this four-month period this data was reviewed by the therapists in order to determine if any themes or patterns emerged.

Results: Results showed that 95% of the young people admitted to the approved centre during this time presented with communication needs, namely difficulties with friendships, social communication issues and difficulty expressing emotions. Only 10% of these young people identified with communication difficulties had previous contact with SLT services in CAMHS or other services prior to admission to Approved centre, possible suggesting parents and /or health professionals had limited or no awareness of these underlying communication difficulties and consequent impact on the mental health of young person, and the subsequent recovery process.

NO SEEN FOR LANGUAGE ASSESSMENT AND PROPORTION OF THOSE WHO PRESENTED WITH LANGUAGE DIFFICULTIES

Discussion: A high incidence of communication difficulties was identified in young people with communication difficulties admitted to the AC, in line with existing research evidence. There is a substantial body of evidence demonstrating the association between speech, language and communication needs and mental illness. Individuals with speech, language and communication needs are at a significantly greater risk of developing mental health problems than the general population (Beitchman et al, 2001; Botting et al, 2016; Clegg et al, 2005), thereby demonstrating the need for speech & language therapy services in both CAMHS and adult mental health services.

Communication needs were generally not identified prior to admission, with just 10% of those identified as presenting with communication difficulties, reporting they had previously attended speech and language therapy services. The evidence in the literature suggests long term and unresolved communication difficulties impact on young people emotionally, socially and academically. Undiagnosed communication difficulties also have wider impact on services from a resource perspective. People with communication difficulties may struggle to access talking therapies and other interventions that are delivered through the medium of spoken language leading to poorer therapy outcomes.

The communication screening programme is now fully established in the Linn Dara Approved Centre with all admissions screened for communication difficulties, and feedback subsequently provided to MDT to inform care planning process.

A parent group programme was developed on completion of this quality initiative within the Approved Centre, which aims to support parents' understanding of communication difficulties, and the potential impact of these on the young person's mental health and subsequent recovery process.

The results of this quality initiative have been shared with community CAMHS teams across the Linn Dara service. Tangible changes in practice have since been observed in Linn Dara CAMHS. Many teams now incorporate SLT assessment into the initial care planning process so that a more comprehensive initial intake assessment of young person can be completed. There has also been an increase in referrals of the more chronic and severe presentations in this service to SLT. Previously the service delayed SLT referral until the young people were "well enough." Now there is a realisation young people may require SLT intervention earlier in care plan to assist their recovery process.

Community CAMHS SLT group therapy programme now consists of evidence-based social communication programmes such as PEERS friendship group to help promote inclusion and social participation, and achieve positive mental health outcomes for this client group. Particularly since there is evidence to suggest loneliness and peer rejection in adolescents may contribute to adverse mental health outcomes for young people with compromised language skills (Durkin & Conti-Ramsden, 2010).

The outcomes and learning from this quality initiative have been incorporated into the new staff induction process in Linn Dara. This information has also been shared nationally and internationally with the wider speech & language therapy community through the Irish and British

professional SLT body conferences in 2021. A further outcome, but unplanned result, has been the use of this data by SLTs working in other services to further inform business cases to support development of adult mental health SLT services.

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[Abstract:1180]

1180 - Management of neonatal abstinence syndrome

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Neonatal opioid withdrawal syndrome (NOWS), or formerly neonatal abstinence syndrome (NAS); occurs in infants of mothers with opioid use disorder (OUD) after exposure to an opioid during pregnancy. Since opioid use disorder is at an epidemic level, especially in developed countries, the incidence of opioid withdrawal syndrome is increasing in newborns. The modified Finnegan scoring scale (MOTHER NAS) is used in the assessment of signs and symptoms of babies with NOWS and the management of the treatment. In the treatment of withdrawal syndrome, it has been very important to use non-pharmacological methods first and to try to alleviate the symptoms of the babies by following them in the same room with their mothers without admitting them to the intensive care unit. Mothers are encouraged to the treatment of their opioid use disorder by taking them into the medication-assisted treatment (MAT) program and to try to breastfeed their babies.¹

A more recent model has also been described as a useful alternative to the Finnegan scoring tool. Implementation of a new method called Eat, Sleep, Console (ESC) can reduce the need for pharmacological treatment in NOWS. The ESC model assumes that infant withdrawal is well-managed if the newborn's basic eating and sleep functions are not interrupted by withdrawal signs or symptoms. While the MOTHER NAS scale provides a list of withdrawal symptoms, the ESC team focuses more on a non-intrusive, functional assessment of infants with NOWS.² In both models, pharmacological methods are used when non-pharmacological methods fail to control the baby's signs and symptoms. However, a common treatment guideline has not been determined yet. In many developed countries, sublingual buprenorphine tablet treatment is more prominent. However, IV morphine is still the first-choice treatment in many countries. Parenteral morphine is the drug of the first choice since there is no other oral alternative treatment in our country yet. Among the second-line treatment options, phenobarbital is used in our country.³

Since the long-term effects of the withdrawal syndrome and the drugs used in the treatment on the baby are not known, it is appropriate to follow these babies together with the social services both while they are in the hospital and after they are discharged. In addition, necessary precautions should be taken for mothers to breastfeed their babies at every stage, mothers should be supported, and breastfeeding continuity should be ensured for nursing mothers.

Additionally, buprenorphine + naloxone combined sublingual drug, which is used in the treatment of individuals with OUD in our country, is generally recommended not to use during pregnancy. There is new evidence that this combination drug is not teratogenic when used during pregnancy⁴ and that adverse effects on the infant are not seen when used in breastfeeding mothers.⁵ Especially in cases where there is no alternative treatment option for pregnant women who receive MAT therapy for OUD, deciding by balancing the risk of OUD relapse and the negative effects of the combined therapy on the pregnant woman and fetus may contribute to reducing the frequency of NOWS in newborn babies.

It will be an important part of the multidisciplinary approach in the treatment of neonatal withdrawal syndrome that the mother continues the medication-assisted treatment program, taking precautions to return to opioid use, and preferring a solution-oriented and gentle communication instead of a judgmental language.

Keywords: Opioid, Newborn, Neonatal Abstinence Syndrome, Neonatal Opioid Withdrawal Syndrome, MOTHER NAS, Eat Sleep Console

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[Abstract:1181]

1181 - Psychological evaluation of patients with covid-19 infection

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Keywords: anxiety, depression, COVID-19, trauma, posttraumatic stress, public mental health

[Abstract:1182]

1182 - Recommendations of new guidelines in the treatment of schizophrenia

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Schizophrenia is a complex mental illness that has a significant impact on the individual and their families. About three-quarters of those diagnosed with schizophrenia experience relapse and one-fifth of them progresses with long-term symptoms and disability. The life expectancy of patients with schizophrenia decrease by 15-20 years. In this complex spectrum there are many current issues. Discussion about these questions start from the high risk group, and continue through premorbid symptomatology, first episode, recurrent episodes, prophylaxis, anxiety and depression, and patients with disability. Current guidelines about schizophrenia have recommendations about all areas of this disorder, but yet some questions may have limited response. The importance of comprehensive and individualized evaluations increase in treatment, especially when the effect of frequent relapses, negative symptoms and cognitive symptoms are obvious. Current pharmacological agents tend to be more effective for the positive symptoms of schizophrenia, but major problem with disability or low functionality is related with negative and cognitive symptoms. Further problems for schizophrenia patients include medical and psychiatric comorbidity, like alcohol and substance abuse. Together with negative symptoms, side effects of antipsychotic medications may lead to the increase on negative symptoms or may cause worse impact on cognitive symptoms. Another question is about treatment resistance. There is not a consensus for the explanation of treatment resistance. Confirmed diagnosis for schizophrenia, treatment for adequate duration, and resistance of symptoms despite adequate treatment are advised as key case by 'Treatment Response and Resistance in Psychosis Working Group (TRRIP)'. For evaluating treatment resistance of schizophrenia, many conditions should be excluded that may have impact on this resistance. Especially adherence, number and types of antipsychotics used previously, duration and dosage of antipsychotics, current severity of symptoms, clusters of

symptomatology is important for decision of treatment resistance. Again new questions continue about clozapine. Other indications of clozapine instead of treatment resistant schizophrenia, like its use in first years of illness, or giving as second antipsychotic challenge is an other debate. Also new requirements in patients with increased disability living in nursing home or with their relatives is an other important area that have limited answer. The other questions are managing comorbid alcohol and substance abuse, the place of ECT on patients with severe functional impairment, the role of mood stabilisers and antidepressants on treatment program, and the place of supportive and other psychotherapies. Guidelines help us for a better and standardized management for high risk groups, psychotic episodes, comorbid situations, general medical problems or comorbidity, times of pregnancy or breastfeeding, and for many extra problems while showing the level of evidence of recommendations according to current literature. Many other questions may need an exact response, but because of a wide clinical and symptomatological spectrum of schizophrenia, finally we need comprehensive and individualized evaluations for both premorbid stages and next years of schizophrenia after onset. In this session, recommendations of new guidelines about the current questions for management of schizophrenia will be discussed.

Keywords: Guidelines, schizophrenia, treatment resistance, functional impairment, disability

[Abstract:1183]

1183 - Food addiction and sleep –wake cycle and disorders

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Although alcohol, hypnotics and drugs form the center of addiction studies, behavioral addictions such as compulsive overeating have also come to the fore recently. It has also been suggested in the past that some high-calorie foods containing high carbohydrates are associated with food addiction.

The effect of these foods on reward pathways, unlike other foods, has highlighted the concept of food addiction. The relationship between binge eating behavior and food addiction with sleep-wake cycle and disorder, sexuality, substance use disorder, and impulsivity has been investigated and tried to be supported by epidemiological and genetic neurobiological studies. In particular, evidence-based studies emphasize that dopamine hypofunction or changes in dopamine receptors in binge eating behavior may be effective in the use of opioid peptides synthesized in the limbic and dopaminergic system, and foods associated with the cholinergic system as a reward. It is known that the sleep-wake cycle has a relationship and interaction with similar pathways. In recent studies, sleep-wake rhythm characteristics of people with food addiction have been investigated and it has been stated that sleep onset and delayed sleep cycle, sleep quality, insomnia may be associated with food addiction. It was also emphasized that the change in the sleep-wake cycle might be associated with food addiction by affecting the reward system. Especially sleep disorders such as insomnia, circadian rhythm disorders, sleep apnea syndrome, night eating disorder, parasomnias, the other hypersomnias like klein levin syndrome, sleep movement disorders and eating behavior and food addiction have been investigated. The reward system and addiction have been studied in people with insomnia, especially with high-calorie foods consumed late daytime. It is also noteworthy that eating behavior changes in circadian rhythm changes and shift workers and may be related to behavioral addictions. Obesity, sleep and eating behavior cycles in obstructive sleep apnea syndrome, which is one of the respiratory sleep disorders, are among the subjects of food addiction researches. The intersection between sleep and eating behavior and addiction in many ways is important in the recognition and treatment of sleep changes and disorders and in the approach to food addiction, which is evaluated within behavioral addiction.

Keywords: Food addiction, Hypersomnia, Insomnia, Sleep patterns, Shift sleep disorders

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[Abstract:1184]

1184 - The use of stimulants for children and adolescents with epilepsy and comorbid psychiatric disorders

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One of the most frequent psychiatric disorders seen comorbid with epilepsy is Attention Deficit Hyperactivity Disorder (ADHD). For this reason, it is important for child and adolescent psychiatrists to know how to manage use of stimulants and atomoxetine for ADHD in this special patient group. One of the major concerns on this treatment is exacerbation of seizure frequency, although it is known that there are also some negative results for the patient and his family unless ADHD is treated. The studies investigating the effects of ADHD medications have some conflicting results as they generally have retrospective designs and do not have consistent clinical evaluations or long term monitoring (Auvin et al. 2018). However, it can be concluded that methylphenidate and atomoxetine are safe psychopharmacological treatment options for ADHD in epileptic patients without an increase in seizure frequency. Even epilepsy patients without seizure control were shown to benefit from methylphenidate treatment with no significant change in their EEGs and their quality of life associated with ADHD increased without enhancing seizure frequency (Gucuyener et al. 2003). On the other hand, there are some opinions highlighting the risk of exacerbating seizure frequency while using stimulants in this patient group (Dunn and Kronenberger, 2005). Seizure induction is another concern in ADHD treatment whether the patient is epileptic or not. However, only a little risk was mentioned for having a seizure while using ADHD medications in a large patient samples with or without epilepsy. So, it seems reasonable to start treatment and follow the patient closely. Of course, treatment decision should be based on the level of dysfunction caused by the psychiatric disorder and the special risk factors (such as any organic disease comorbidity, structural abnormalities in cranial MRI, the last seizure date, EEG results etc.) for that patient. Based on our experience, stimulants were found to be safe and effective in a child and adolescent ADHD group with epilepsy according to a retrospective study held in our clinic.

In conclusion, prospective long term monitoring studies in larger samples are needed in this field for clinicians to decide and manage tailored treatment options for these patients. Also, to improve life quality and maintenance of the treatment, the drug-drug interactions (especially between antiepileptics and psychiatric medications), side effects other than seizure induction are some of the other important parameters to further evaluate for ADHD treatment in epileptic patients.

Keywords: epilepsy, ADHD, methylphenidate, child and adolescent psychiatry

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Keywords: epilepsy, ADHD, methylphenidate, child and adolescent psychiatry

[Abstract:1185]

1185 - Time perception in schizophrenia

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Time perception is a fundamental element of human awareness. The ability to perceive time is one of the basic requirements for developing successful behavioral strategies. As a result of the investigations based on internal clock models, it has been suggested that the variation of time perception among individuals may be due to different mechanisms. Pathophysiological distortions in time perception have been reported in a number of different neuropsychiatric disorders.

The exact nature of time perception disturbances in schizophrenia has recently been debated. The pathophysiology of schizophrenia has been associated with abnormalities in dopamine transmissions which in turn, have been linked to the speed of the internal clock. Several studies have demonstrated dopamine receptor agonists accelerate the internal clock, while antagonists decelerate it.

There are many studies showing that the error rate in tests measuring time estimation skills of patients with schizophrenia is significantly higher than the healthy controls.

Recent evidence challenges the notion of a genuine time perception disorder in schizophrenia. Indeed, the internal clock of patients with schizophrenia is not faster than that of normal controls and patients' performance on timing tasks is impaired only in cognitively demanding trials. This suggests that timing disturbances in schizophrenia are secondary to disease-related cognitive impairments and that attention and working memory deficits explain the observed time perception impairment. This issue has not, however, been clarified by empirical findings. Although many of the reported deficits in timing in schizophrenia may be explicable in terms of impairments in other cognitive processes, there are nevertheless reasons to believe that primitive timing mechanisms are also impaired in this population.

Rammsayer (1990) has shown that patients with schizophrenia perform worse than controls on a task that requires discrimination of very brief durations (in the order of 50–100 ms), a task that is perceptual in nature and places minimal demands on non-temporal processes. In another study aiming to minimize the effect of cognitive processes by using short time intervals at the level of milliseconds participants were asked to make time estimations for durations less than 1 second, and it was found that the error rate was higher in patients with schizophrenia. This result indicates the existence of deficits specific to time processing in patients with schizophrenia.

As schizophrenia has been characterized as a deficiency in the temporal coordination of information processing in the brain, it has been argued that impairments of time processing could be an essential part of its pathogenesis and that disruption of patients' internal clock might be associated with highly disabling symptoms like delusions or hallucinations.

Altered dopamine transmissions have been suggested to cause positive psychotic symptoms in several psychiatric illnesses, particularly schizophrenia. Dopamine transmissions also regulate the speed of the internal clock. Therefore, it is possible that dysregulation of dopamine activities may produce positive symptoms via modulation of the internal clock, which deserves further investigations.

Specifically, as the change in time perception has been associated with psychotic states, its measurement may add to an objective evaluation of psychosis, and possibly, early interventions.

Keywords: Cognition, Internal clock, Psychiatric disorders, Schizophrenia, Time perception.

[Abstract:1186]

1186 - Assessment and management of intellectual disabilities in adult psychiatry

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Learning objective: For adult psychiatrists to gain general understanding of ID in adult psychiatry setting and to obtain practical tips on assessment and management of comorbid psychiatric conditions.

Intellectual Disability (ID)/ Intellectual Developmental Disorder (IDD) is a lifelong neurodevelopmental disorder which effects approximately 1% of the population.

With the increasing life expectancy, adult psychiatrists are more likely to encounter this group of patients who have often complex medical and mental health problems. It has also been consistently reported that persons with ID experience mental health problems at least as often as general population. Nevertheless, there are concerns over the poor availability of ID training in psychiatry curriculum.

The aim of this course is to present a general overview of ID /IDD, and to provide psychiatrists with some practical guidance on assessment and management of this special group of patients in adult psychiatry setting.

Keywords: adults, assessment, intellectual disability, management, mental health

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[Abstract:1187]

1187 - Management of clozapine induced siallorrhea

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Clozapine is a second generation antipsychotic drug, which is a golden standard at a treatment of resistant psychosis. However it may cause significant adverse effects. Hypersalivation has been reported in 30 to 80% of patients taking clozapine. Clozapine induced siallorrhea may cause perioral skin laseration, chronic sleep problems related nocturnal siallorrhea, aerofagia due to increased swallowing frequency, parotitis, social stigmatization and aspiration pneumonia. Although the underlying mechanism in clozapine-induced sialorrhea is not fully known, adrenergic alpha 2 antagonism, muscarinic M4 agonism, muscarinic M3 antagonism, and reduction of laryngeal peristalsis or inhibition of the swallowing reflex are blamed. Anticholinergic drugs, santral alfa 2 agonists and behavioral methods are frequently used in the management.

Keywords: Clozapine, Siallorrhea, Side effect management

[Abstract:1188]

1188 - Coexistence of dissociative symptoms and depression

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Depression is a major public health problem, affecting 350 million people worldwide. It is estimated that the negative effects of depression will increase significantly in the coming years. Depression is the third most common cause of disability in the community for disability adjusted by life years measure. For this reason, major depressive disorder (MDD) needs to be addressed in many ways and treatment protocols need to be updated[1]. In our article, I aimed to address the reflections of dissociative phenomena on depression and possible effects on its course in patients with MDD, which is an important psychiatric disease. Dissociative disorder is a common disease in the previously often overlooked clinical population associated with childhood trauma and patients with a history of trauma are more likely to develop dissociative symptoms. Dissociative symptoms are expressed as situations that produce dissociated memories caused by psychogenic stressors. Dissociative symptoms, along with the spectrum of the dissociative syndrome, have been associated with various psychiatric diagnoses such as depression, borderline personality disorder or anxiety disorders. On the other hand, its association with dissociative symptoms, brain damage or organic brain diseases should not be overlooked. Although dissociations are seen as a pathological situation, there are clinical studies showing that it can be a parallel process to defense and recovery against threats. Studies have shown that there are similarities in the presence of frostbite and simultaneous analgesia, anesthesia, and pain in threatened animals. In a passive coping strategy that provides energy conservation, the parasympathetic nervous system contributes to situations such as disengagement, dissociation, and immobility response. The emotions associated with

parasympathetic system activation are such as shame, disgust, hopelessness, and despair. Passive and avoidant dissociation, which emerges as hopelessness, learned helplessness, social and emotional withdrawal, and disengagement, has many features that overlap with parasympathetic system activation. These data may suggest that the parasympathetic system has an important role in dissociation. In addition to these features of dissociation, studies have revealed that it has a statistically significant relationship with depression and traumatic stress[2]. The role of dissociation in patients with depression is remarkable in this significant relationship. Sar et al. it showed that more than 80% of patients with dissociative identity disorder have had at least one MDD episode in the past. In another study, patients with depression were more likely to show pathological dissociation than patients without depression. Based on all these situations, Shar referred to the frequent co-occurrence of dissociation and depression and suggested the term "dissociative depression" to describe depressive patients with dissociation. Dissociative depression is a disease with a low response to pharmacotherapy, a chronic course, and a close relationship with childhood traumas. These patients usually have long-term treatment trials with antidepressants, but trauma-focused psychotherapies targeting dissociative pathology are likely to benefit these patients. Patients with dissociative depression are often exposed to environmental stressors intensely from childhood. In addition, interpersonal attachment problems, which manifest in adulthood, are dominant in children from families with affective dysregulation and rigid thinking style. Dysfunctional communication of families, which has been suggested in the pathogenesis of schizophrenia in previous studies, indicates dissociative families. Dissociative depression contains many unique symptom clusters. DD is a disease that tends to start at a younger age than other depressive patients, is characterized by irregular depressive mood, and has a chronic course rather than episodes. According to one study, concentration difficulties, thoughts of guilt and worthlessness, suicidal ideas, and weight changes are more common in DDs than those without dissociative depression. Women with DD reported that Schneiderian symptoms, suicide attempts, and borderline personality disorder symptoms were more common. Although they have persistent suicidal thoughts, they can control these thoughts. Mood changes in these patients can be very rapid and last very short[3]. Dissociative depression, which has a close relationship with trauma, resistance to pharmacotherapy, many different features, and dissociative symptoms, is waiting to attract the attention of researchers about new approaches, which were recommended to be evaluated under a separate title for the first time by Vedat Sar.

Keywords: Depression, Dissociation, Dissociative Depression

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[Abstract:1190]

1190 - Overview of psychoimmunology

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Immunology, which has spoken of itself since ancient times, is one of the cornerstones of modern medicine. The brain, endocrine and immune systems are in close relationship with each other. Immune molecules have a powerful effect on neuroendocrine function, including hormone-behavior interactions.

The human major histocompatibility complex (MHC) on chromosome 6 contains many polymorphic genes such as HLA (Human Leukocyte Antigen), which has a role in immunological function.

Specific HLA alleles are strongly associated with autoimmune diseases. There are a number of studies showing schizophrenia, narcolepsy, Alzheimer and HLA associations among neurological and psychiatric diseases. In child psychiatry, dyslexia, attention deficit and hyperactivity impairment and the detection of antibodies against the fetal brain in the mothers of autistic children have provided strong evidence that immunological mechanisms are involved in the etiology of neurodevelopmental disorders

In literature, some studies reported an association between streptococcal infections, antibasal ganglia antibodies (ABGA) positivity and different neuropsychiatric disorders such as Sydenham's chorea (SC), pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections (PANDAS), Gilles de la Tourette syndrome, obsessive-compulsive disorders, and also in comorbidity with ADHD.

Maternal immune activation (MIA), triggered by both acute and systemic chronic inflammation, is hypothesized to be one of the mechanisms implicated in the pathogenesis of neurodevelopmental disorders. Because of the immune system of the fetus is very sensitive during pregnancy, maternal inflammation affects the fetal metabolic, neurological and immune systems. Researches reported that some of the mechanisms by

which maternal immune activation (MIA) with viral infection or viral mimetics can persistently alter offspring immune function, disrupt fetal brain development, and induce the onset of autism-like behaviors in animal models. An overall increased risk of autism in children with family history of autoimmune diseases was identified. Evidence for risk of autism in children showed a statistically significant association with family history of some specific autoimmune diseases like hypothyroidism, type 1 diabetes, rheumatoid arthritis, and psoriasis.

As a result of all these studies, immunological mechanisms play a significant role in the etiology of neurodevelopmental disorders. And given the increased prevalence of neurodevelopmental disorders, there is urgent need to investigate the relation of maternal risk factors and disease mechanisms.

Keywords: autism, child psychiatry, etiology, immunology, HLA

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[Abstract:1193]

1193 - Trans- disciplinary new maudisley online workshops for parents of young people with eating disorders– collaborative care in camhs during a global pandemic

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Keywords: New maudisley method, caregiving, CASK, carer burden, motivational interviewing

[Abstract:1196]

1196 - Psycho-educational parent groups to optimise communication skills of young people with 22q11.2 Deletion Syndrome

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Keywords: 22q11DS, speech and language therapy, Parenting Stress Index (PSI), psycho-educational parent programme

[Abstract:1198]

1198 - Pathophysiology of pathological laughing and crying

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Pathological laughing and crying (PLC) is a behavioral condition characterized by relatively uncontrollable laughing, crying, or both, as a variant of central nervous system disorders. The characteristic of PLC is that laughing and crying are enduring and spontaneous. In some cases, a response unrelated to the stimulus may occur. For example, patients may laugh in response to sad news or may cry in response to a moving hand in the visual field or laughing can suddenly turn into crying. Pathological crying is more common than laughing. Patients cannot control the duration and intensity of laughing and crying. The terms emotional lability, emotionalism, emotional dysregulation, and less frequently, emotional incontinence, pathological emotionality are used for PLC which was reported by Fere in 1903 as "Four rie prodromique" (uncontrollable laughing attacks). Oppenheim and Siemerling (1886) described exaggerated emotional behaviors associated with lesions of the pathways descending to the brain stem in their study of the pathophysiology of emotional lability. Oppenheim used the term pseudobulbar affect (PBA) to describe "spasmodic bursts of laughter or crying". PBA is classically associated with pseudobulbar palsy, but some have used the term to encompass pathological laughing and crying (PLC) and emotional lability (EL) syndromes (1). Based on case studies reporting various lesion locations, PLC was conceptualized as a dysfunction in the cortico-limbic-subcortico-thalamo-ponto-cerebellar network. It has been suggested that lesions or degenerations associated with these regions involved in the generation and modulation of emotions may produce dysregulated affect. Accordingly, many neurological conditions may affect these networks and thus PLC may occur. In the most accepted pathophysiological model of PLC; A center in the periaqueductal gray matter for control of facial expressions, respiration, and vocalization is assumed to be controlled in two ways: An emotional system that provides stimulant control of the periaqueductal gray matter. A voluntary system descending from the temporal and frontal lobes, basal ganglia, hypothalamus, and lateral premotor cortices, capable of suppressing laughter or crying. Regarding the possible differences between PL and PC neuroanatomy, it has been suggested that PL is more common in patients with lesions of the right hemisphere and PC with lesions of the left hemisphere. PL may also be due to lesions of the hypothalamus, particularly hypothalamic hamartomas. PC and PL, alone or in combination, are often the result of bihemispheric injury. The specified neural networks are regulated by many neurotransmitters and other neuroactive substances. Among these, serotonin, dopamine, noradrenaline (norepinephrine) and glutamate seem particularly relevant to the pathophysiology of PLC. In contrast, PLC can often respond to pharmacotherapy, especially SSRIs. Decline in the access of these neurotransmitters, particularly serotonin, to their limbic, paralimbic, cortical and cerebellar targets can disrupt the 'emotional mood' (affective) without causing a change in the 'emotional climate' (mood). This hypothesis requires further research (2).

Systematic and consistent application of diagnostic criteria, with attention to the diagnosis of PLC and EL subtypes, will be important to improve our understanding of the pathophysiology and treatment of these disorders. There is also a need for validity and reliability studies of the proposed criteria. Our current understanding of PLC pathophysiology and treatment provides many opportunities for further research (3).

Keywords: Pathological crying, pathological laughing, Pathophysiology

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[Abstract:1200]

1200 - Supporting communication in young people who self-harm – mitigating risk and adding value in an Irish outpatient Child & Adolescent Mental Health Service (CAMHS)

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Keywords: self-harm, speech and language therapy, language disorder, social communication difficulties, ELKLAN

[Abstract:1202]

1202 - Coexistence of anxiety disorder and dissociative symptoms

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Dissociation is defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) as a “disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior”. Dissociative amnesia, desensitization, derealization, identity confusion, and identity changes are the main phenomena of dissociative psychopathology [1]. Dissociation has been most studied in relation to trauma and post-traumatic stress disorder. However, dissociation might be best considered a set of transdiagnostic experiences that are common, and clinically significant in their own right. Dissociative symptoms are present in various psychiatric disorders and are viewed as a major risk factor for suicidal, self-destructive behavior, and may influence their phenomenology as well as response to treatment. A recent network analysis study suggests dissociation is highly connected with anxiety symptoms. Experiences of depersonalization/derealization are often fraught with anxiety symptoms. In recent studies, it has been shown that the dissociative symptoms in panic disorder, social anxiety, and phobias may affect the clinical presentation and treatment process in these disorders. Also, it is concluded that, on detecting panic disorder, social anxiety, and phobias, the clinician should not neglect underlying dissociative processes and traumatic experiences among these patients [2,3]. However, there is also a lack of well-designed studies in this area.

Keywords: Anxiety disorders, dissociative symptoms, panic disorder, phobia, social anxiety**References**

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[Abstract:1204]

1204 - Assessment and management of adhd in adults

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ADHD, a neurodevelopmental disorder, is one of the most common psychiatric conditions. Although, in comparison to other mental disorders, ADHD is a relatively common disorder with a prevalence of 2.5%–4% in adulthood, it still tends to be overshadowed by other diagnoses. Untreated ADHD should be considered in all treatment (pharmacotherapy and psychotherapy)-resistant cases with three or more comorbidities. The aim of this course is to present general information about the recognition of ADHD cases and treatment processes in adults in daily clinical practice. It is aimed to provide practical recommendations and tips for diagnosis. In the second part of the course, basic information for pharmacotherapy, recommendations from treatment guidelines and applications in clinical practice will be discussed.

Keywords: ADHD, adults, assessment, management**References**

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[Abstract:1206]

1206 - Epidemiology of adhd in adults attending mental health services. an irish perspective

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*Sligo Mental Health Services***Keywords:** ADHD, epidemiology, outpatients, Ireland

[Abstract:1207]

1207 - Trauma concept, clinical presentation and assessment of the patient

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Trauma is pervasive, it can occur at almost any point in the human life span, and human response to trauma can be extremely complex [1]. Researches shows, most people in Western society will experience one or more potentially traumatic events during their lives. A significant number of these people will suffer lasting psychological distress, ranging from mild anxiety to symptoms that interfere with almost all aspects of functioning [1].

But first of all what is trauma, what is traumatic for a human being and what is not? Some have criticized the requirement that trauma be limited to “exposure to actual or threatened death, serious injury, or sexual violence,” since many events may be traumatic even if life threat or injury is not an issue [2]. The earlier DSM-III-R (APA, 1987) definition also included threats to psychological integrity as valid forms of trauma. Because the DSM-5 does not consider events to be traumatic if they are merely highly upsetting but not life threatening, it undoubtedly underestimates the extent of actual trauma in the general population. The issue of whether an event should diagnose as “trauma” is an ongoing discussion [3,4]. Some clinicians recommend that; an event can be considered as traumatic if its extremely upsetting, at least temporarily overwhelms the individual’s internal resources, and produces lasting psychological symptoms.

There are so many ways in which an individual can be psychologically hurt, not all of which are easy for the client to disclose or express in an initial clinical interview. Clinical presentation of trauma can be in various ways. Some patients can apply to treatment with clear PTSD symptoms but some may apply with unspecific depressive complaints. It’s also not rare to confront with a major traumatic event at upcoming sessions with any psychiatric patient going under treatment with any kind of diagnose. As a clinician it is impossible to avoid trauma patients but it is possible to not notice them. Some patients will not report events they have experienced unless they are specifically asked about those events in a nonjudgmental, supportive context. Victims feelings of guilt and shame makes traumatic memory hard to share, also patients denial and suppression makes it even more complicated. Every patient should be considered as potential trauma victim. Regardless of the kind of psychotherapy school; clinicians nonjudgmental, empathic attunement to the client, compassionate stance, and attention to the therapeutic relationship are critically important. Clinicians first job should be not traumatise the patient again! Awareness of the trauma and its psychological effects can help the clinician to understand what the client has undergone.

It’s important to know that working with trauma survivors can be challenging. It can affect clinicians trust about “others”, and it can damage the “fair” and “safe world” belief of us just like the trauma patient experienced. This work also can be deeply satisfying and rewarding. Trauma survivors show us that human beings have a capacity to heal, to overcome enormous challenges, and to grow. As we engage this process as clinicians, we almost inevitably learn important existential lessons about life and the workable basis of human suffering.

Keywords: Assessment of trauma, Trauma, PTSD

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[Abstract:1208]

1208 - Is obstructive sleep apnea associated with any psychopathology in children?

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OBJECTIVE: Obstructive sleep apnea syndrome is the pathophysiology of the recurrent partial or total collapse of the upper airways that may impair normal ventilation and sleep. Tonsillar hypertrophy and adenoid hypertrophy are the two main factors that cause obstructive sleep apnea syndrome in children. Generally, children with obstructive sleep apnea syndrome have impaired cognition, executive, and emotional functions. In addition, sleep disturbance and hyperactivity symptoms are related to the worsening of obstructive sleep apnea syndrome. Scientific and clinical shreds of evidence tend to highlight similarities between Attention-deficit hyperactivity disorder (ADHD) and obstructive sleep apnea syndrome effects/comorbidities in the childhood period¹. In parallel, we aimed to investigate the relationship between ADHD and other psychiatric pathologies in children with obstructive sleep apnea syndrome

METHODS: Twenty patients with adenoid and/or tonsillar hypertrophy aged 2-7 years were referred to the pediatric psychiatry outpatient clinic. 11 (55%) of these children were female and 9 (45%) were male. The mean age was found to be 5.2. Determining the psychopathology of children, a fully structured psychiatric interview was conducted with DAWBA. Besides, parents were administered with Strengths and difficulties questionnaire (SDQ), Conners Parental Scale-long-form (CPS), child sleep habits questionnaire (CSHQ). The SDQ evaluation is related to 5 parameters: Attention and hyperactivity are behavioral problems, emotional problems, peer problems, and social problems.

RESULTS: Among the premorbid features, the most important factors associated with psychopathology were a difficult history of the birth and a history of frequent upper respiratory tract infection in childhood ($p < 0.005$). It was shown that 65% ($n=13$) of patients had symptoms of hyperactivity, 35% ($n=7$) had sleep problems, and 10% ($n=2$) had behavioral problems.

CONCLUSION: ADHD comorbidity is very common in children with obstructive sleep apnea syndrome. In addition, children with obstructive sleep apnea syndrome have sleep problems in their daily lives. Studies have shown that there is a close relationship between obstructive sleep apnea syndrome and ADHD, and obstructive sleep apnea syndrome may contribute to ADHD symptoms. Treatment of obstructive sleep apnea syndrome appears to have favorable effects on ADHD symptoms². Also it is known that subjects affected by obstructive sleep apnea syndrome presented higher scores in the pathological range in all scales of ADHD than controls. However, the relationship is not yet clear, it is thought that longitudinal studies or clinical trials will shed light on this area in order to better understand these relationships and their prognostic effects.

Keywords: Tonsillar hypertrophy, hypoxia, obstructive sleep apnea–hypopnea syndrome, attention deficit-hyperactivity disorder, sleep problems

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[Abstract:1211]

1211 - The role of neuroinflammation in autism spectrum disorders

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Autism Spectrum Disorder (ASD) is responsible for an increasing life long heavy burden for both the patient and the community. Up to now there is no cure for the disorder and interventions are limited to rehabilitation and treatment of comorbid psychiatric diseases. The etiology is still unknown, however data from etiological studies led the researchers to the hypothesis that, environmental factors should interact with genetic factors in order to manifest the symptoms of the disorder (DSM-V, 2013). To plan interventions for protection and treatment, the mechanism underlying these interactions should be addressed.

Recent etiological human and animal studies have given credit to neuroinflammation in ASD (Prata et al. 2018). As neuroinflammation is important in synaptic pruning mechanism and there is data supporting that synaptic pruning is impaired in neurodevelopmental disorders, it seems reasonable to understand how it works exactly in this elegant brain development process. There is a lot of ASD research data reporting an increase in peripheral inflammatory parameters and in postmortem brain tissue for both humans and animals. Although there is some consistent data about neuroinflammation in human studies, it is essential to test the hypothesis on an animal model before proposing an intervention. One of the proposed animal models mimicking ASD related behaviour is maternal immune activation (MIA) model. (Estes and McAllister, 2016). MIA is modeled with prenatal infection in the pregnancy of mice and rats which results in ASD related behaviour and impairment in synaptic pruning. MIA model also presents some data about the imbalance of inflammatory and anti-inflammatory processes triggered by prenatal inflammation which is mainly in the management of microglia.

Recent studies in the neuroinflammation literature about ASD will be summarized to discuss possible interventions for both protection and treatment in this panel.

Keywords: ASD, MIA, neuroinflammation

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[Abstract:1212]

1212 - Clozapine use in children and adolescents

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Background and objective: Clozapine is an atypical antipsychotic typically reserved for patients with schizophrenia who have failed to respond to two or more other antipsychotics. But clozapine is not labeled for use in pediatric population. A trial of clozapine should be considered for youth with treatment-resistant schizophrenia spectrum disorders, according to Practice Parameter for the Assessment and Treatment of Children and Adolescents with Schizophrenia from the American Academy of Child and Adolescent Psychiatry (AACAP). While most clinicians are well aware of clozapine's rare but potentially life-threatening side effects of agranulocytosis and myocarditis and the associated monitoring, many seem unaware of its marked clinical effectiveness. We aimed to explain the effects of clozapine for the management of psychotic and nonpsychotic symptoms in the pediatric population in line with the literature and the clinical experience of Bakırköy Prof. Dr. Mazhar Osman Psychiatric Hospital.

Methods: We conducted a search of PubMed, ClinicalKey, and MEDLINE databases. Keywords used included, in varying combinations: clozapine, indications, children and adolescent, pediatric, suicidality, psychosis, early and very-early onset schizophrenia, and long-term use.

Results: We show the documented efficacy of clozapine for the management of psychotic and nonpsychotic symptoms in the pediatric population.

Conclusions: Although there is supporting evidence in the existing literature regarding the benefit of using clozapine in many indications, larger studies should be conducted to establish guidelines for treatment and side effect management.

Keywords: clozapine, indications, children and adolescent, psychosis, early and very-early onset schizophrenia

[Abstract:1213]

1213 - Management of clozapine induced epilepsy, myocarditis and other side effects

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Background and objective: Clozapine is an atypical antipsychotic used in the treatment of resistant schizophrenia. It has a well-known side effect profile like myocarditis, decreased seizure threshold, and adverse cardiometabolic events. However, literature investigating use of clozapine by children and adolescents, its side effects and management is limited. The primary aim was to evaluate the handling of clozapine related myocarditis, epilepsy and other side effects in child and adolescent population.

Methods: We systematically reviewed the literature on management of myocarditis, epilepsy and other side effects associated with clozapine therapy. The search engines were MEDLINE, EMBASE, PsycINFO and Cochrane reviews. The references incorporated in the manuscripts examined were searched to determine additional reports.

Results: We describe the management of well-known side effects like myocarditis, epilepsy in the pediatric community. Unfortunately, these were minimal number of study related with clozapin use and management of side effects in children population. Cardiomyopathy, pericarditis, myocardial effusion, heart failure, myocardial infarction, mitral valve insufficiency, and myocarditis reported with clozapine. Deaths have been documented. The risk of myocarditis appears highest in the first 4–6 weeks of therapy. Investigating patients who develop persistent tachycardia at rest, accompanied by symptoms of heart failure (e.g., chest pain, shortness of breath or arrhythmia), and/or fatigue, flu-like symptoms, hypotension, and unexplained fever is significant. Clozapine-related seizure is a serious adverse reaction of clozapine. Clozapine lowers the epileptic threshold, leading to seizures, which are severe side effects of antipsychotics that result in multiple complications. Clozapine-related seizures are considered dose dependent and especially rare in the low-dose (150-300 mg/d) clozapine treated population. Because of clinical scarcity, little is known about its clinical characteristics and treatment. There is poor consistency in when clozapine is prescribed, how long it is administered, and how long patients are followed in this age group. Despite the lack of FDA and manufacturer guidelines, clozapine continues to be needed for the favor of young patients.

Conclusions: The results demonstrate there is a lack of clinical studies exploring myocarditis, epilepsy and a limited intervention to manage these side effects associated with clozapine in pediatric population. As there is no alternative treatment for refractory schizophrenia, the current review highlights the need for better designed studies, well described follow-up strategies and development of novel interventions for clozapine-induced side effects.

Keywords: clozapine, pediatric population, adolescent, side effects, management

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[Abstract:1214]

1214 - Phenomenological attitude and dreams in psychotherapies

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Dreams have been one of the important psychological phenomena that human consciousness wonders and tries to understand throughout history. The entry of dreams into the field of psychotherapy was made possible by Sigmund Freud's psychoanalysis. The symbols in the dream must be interpreted in order to achieve the latent purpose. Alfred Adler, in his theory of individual psychology, claimed that dream experience has close characteristics with waking life, and was the first analyst to think significantly differently from Freud about the origin and function of dreams. Carl Gustav Jung, under the umbrella of analytical psychology, developed an original theory by extending dreams to the collective unconscious in the field of the personal unconscious. While Gestalt therapy followers emphasized emotions and integration process in dreams, cognitive therapists focused on cognitive mechanisms and patterns in dreams. While Motivational Systems followers, who belong to the relational psychoanalysis school, were interested in the adaptive functions of dreams by making use of REM studies, Ernest Hartmann worked on the connections established by the dreaming brain on the basis of neurobiology, the central image and emotions of the dream. In the phenomenological dream vision, the unconscious assumption is almost never included; symbolic interpretation was abandoned and phenomenological interpretation was taken as the basis. The aim of this article is to show how dream studies, which started with psychoanalysis in the history of psychotherapy, evolved from the symbolic interpretation technique to a phenomenological attitude focused on self and consciousness over time.

Keywords: Dream interpretation, phenomenological attitude, psychotherapy

[Abstract:1216]

1216 - Food addiction and sexuality

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WHO defines sexual health as a state of well-being that strengthens one's personality, communication and love by considering one's sexuality as a whole with somatic emotional, intellectual and social aspects (1). Sexual health is an indispensable component of health. Sexual dysfunctions may occur due to organic and psychological causes. In DSM V, is examined under the headings of sexual dysfunctions include delayed ejaculation, erectile dysfunction, female orgasm disorder, female sexual interest/arousal disorder, sexual organ-pelvis pain/penetration disorder, male low sexual desire disorder, premature ejaculation, substance/drug-induced sexual dysfunction, another defined sexual dysfunction unspecified sexual dysfunction (2). In addition to diabetes, heart diseases, urinary tract diseases, chronic diseases, also depression, anxiety, psychotropic drug treatments, substance use disorders, social and cultural factors are important predictors for sexual dysfunction (3). Although new types of addiction have described with the developing world, it is still controversial which type of addiction is food addiction. There are studies on obesity and sexual life, which is one of the problems frequently caused by food addiction, but still we have limited knowledge about the relationship between food addiction itself and sexual life, apart from obesity. Perhaps in the coming years, we will need to examine two different behaviors, such as sex and eating, on a behavioral and cognitive axis rather than biological axis. Maybe we will identify a single addicted individual and treat this type of behaviors as the symptoms of that addicted person. Today, it is known that there are transitions from alcohol or substance addiction to behavioral addiction or vice versa. Today we will focus on sexual dysfunctions rather than sexuality. The lifetime prevalence of sexual dysfunctions varies between 30-50% (4). Obesity brings with it many physical and psychological comorbidities and reduced quality of life. In a study conducted with obese patients, it was found that sexual dysfunctions were higher in obese women than in non-obese women (5). Food addiction is defined by Gearhart et al. as a process that develops with the consumption of especially processed foods rich in fat, sugar and salt, and in which symptoms similar to substance addiction are observed (6). Studies have found an increased frequency of food addiction in obese individuals. The frequency of food addiction increased in obese individuals who are bariatric surgeon candidates, and the psychosocial and sexual quality of life was found to be low in those with food addiction (7). Also, in a study conducted with women, higher rates of food addiction were found in individuals who responded highly to preferred food cues compared to erotic images (8).

Keywords: addiction, food addiction, sexuality

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[Abstract:1218]

1218 - Inflammatory signaling in depression and anxiety disorders

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Neuroinflammation is triggered against an infection and/or a damage to protect and restore the normal structure and function of the brain. Alive or dead cells and microorganismal intrusion must be detected by multicellular organisms. This detection requires a warning system via receptors and signaling pathways. Pathogen associated molecular patterns (PAMPs) alert the organism to intruding pathogens, which are derived from microorganisms. Damage associated molecular patterns (DAMPs) are associated with components of host's cells, which are released during cell damage or death. DAMPs include lipids, sugars, metabolites, and nucleic acids such as RNA and DNA species. These patterns are recognized by pattern recognition receptors (PRRs) such as Toll-like receptors (TLRs), NOD-like receptors (NLRs) and AIM2-like receptors (ALRs). These PRR families have different structures and response within different PAMPs and DAMPs; however, they can activate same signaling pathways. TLRs, are transmembrane proteins, activate MAP kinase, NF κ B and IRF pathways. NLRs, are cytoplasmic sensors, activate inflammasome complex. ALRs, localize in the cytoplasm, recognizes double stranded DNA; then activate inflammasome complex.

The inflammation cascade is started via the activation and oligomerization of NLRs and ALRs. These receptors, an adaptor protein (ASC-apoptosis-associated speck-like protein containing a caspase recruitment domain) and caspase 1 are three major components of inflammasome complex. This complex can facilitate activation of caspase-1. Activation of these inflammasomes leads to the processing and secretion of inflammatory cytokines including IL-1 β and IL-18.

Neuroinflammation in Depression

Exposure to psychological stressors activate an inflammatory signaling as well as physical stressors. Recent data from laboratory and clinical studies demonstrate that both serum inflammatory markers such as TNF- α , IL-1 β etc. and behavioral changes that referred to as sickness behavior such as fatigue, loss of appetite etc. can be observed in major depressive disorder (MDD) patients. These data indicate the 'neuroinflammation hypothesis' of MDD.

Acute inflammatory response is usually beneficial while prolonged inflammatory response has negative consequences. Immune signaling activate the microglial cells and astrocytes, which begin to release proinflammatory cytokines that bind to the receptors. Chronic or severe stress rapidly activates HPA axis, which resulted in release of glucocorticoids and catecholamines into target organs and the circulation.

Additionally, stress cause glucocorticoid resistance, resulting in decreased inhibitory feedback, which results in enhanced inflammatory response. Proinflammatory cytokines can reduce monoamine synthesis while condensing monoamine transporters; which cause dysfunction in synaptic reuptake of monoamines. Moreover, cytokine release cause change in NMDA receptors, which leads to an increase in synaptic glutamate release, that cause glutamatergic excitotoxicity. Cytokine release also causes neurotrophin decrease (BDNF). Both NMDA receptor change and neurotrophin decrease cause neuronal cell apoptosis and neuronal damage. In other words, neurodegeneration increase and neurogenesis decrease during chronic stress.

To sum up, neuroinflammation has a major role in etiology and maintenance of MDD. Proinflammatory cytokines have a key role in neurotransmitter function, neuroendocrine regulation, neuroplasticity and neurotrophic support. It also alters behavioral changes including anxiety and depression-like behaviors that resemble MDD symptoms.

Keywords: cytokines, depression, neuroinflammation

[Abstract:1219]

1219 - How do microorganisms affect the brain? neuroinflammation theories in the research of schizophrenia

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What we know about the etiology and the treatment considerations of schizophrenia (SCZ) mostly depends on the neurotransmitter hypothesis. Current treatment options originated from this hypothesis provide insufficient improvement in cognitive and negative symptoms. In order to overcome this inadequacy, for the past decade, much research has emphasized the complex interplay between genetic and environmental risk factors. In that respect, microorganisms are one of the promising culprits because the human body and environmental togetherness predominantly consist of microorganisms that we are living together. The effect of microorganisms in the human body emerges over the immune system, both direct and indirect routes. Moreover, the immune system plays a vital role in nervous system function and pathology through regulating neuronal and glial development, synaptic plasticity, and behavior. Knowledge about the implications of microbes on the immune-brain axis and SCZ is necessary to understand the pathogenesis of this disease better and will enhance the development of more translatable animal models that may lead to effective therapeutic interventions. Maestro of the innate immunity in the central nervous system (CNS) is the microglia cells of which the primary function is rapidly responding to inflammatory insults through dynamic guard of the CNS parenchyma and clearing debris and apoptotic cells through phagocytosis. These cells contribute to normal brain development and function by supporting the neuronal circuitry through synapse addition, elimination, maintenance, and plasticity. Recent studies have started to unearth the diversity of microglia existence and its gene expression across the different brain regions. There is some good evidence about microglial dysfunction in SCZ, and microbiological agents have a burden on these cells. In addition to effect of the pure microbiological framework on SCZ, there is a lot of research discussed the genetic process. Although a number of genetic evidence came from genome-wide association studies that discovered loci throughout the genome that are associated with SCZ, the molecular etiology of SCZ remains heterogeneous and unclear. Considering the immune-brain relationship, good evidence about immune dysfunction and inflammation can shed light on its pathophysiology. For instance, the major histocompatibility (MHC) locus located on chromosome 6 has the highest association to SCZ compared to any other loci across the genome. Along with genetic connection, immune challenges during pregnancy increase offspring risk for various neurodevelopmental and neuropsychiatric disorders, including SCZ. Specifically, maternal exposure during pregnancy to bacterial or viral infections such as influenza, rubella, or herpes leads to lasting changes in offspring brain function and behavior. In addition to maternal infection, peripheral infections have been shown a role in the development and clinical deterioration of SCZ. The blood-brain barrier (BBB), which restricts the passage of molecules between the blood and the brain to protect sensitive neural tissue from pathogens and immune molecules, is disrupted in pathological states, like SCZ. In conclusion, more knowledge about immune-brain interaction in the research of SCZ will increase the treatment options and preventive interventions.

Keywords: schizophrenia, etiology, treatment, inflammation, microbiology

[Abstract:1220]

1220 - Interaction between microbes and schizophrenia

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The pathophysiology of schizophrenia is tangled, and biological factors are among the leading causes

Schizophrenia is a chronic, debilitating, and etiologically knotty psychiatric disorder. The pathophysiology of schizophrenia is tangled, and biological factors are among one of the leading causes. In the beginning, the study of microorganisms such as bacteria, viruses, archaea, fungi, and protozoa in the context of schizophrenia may be mind-boggling to some. This intersection, however, is currently revitalized by newfound roles of the microbiome and the gut-brain axis. In this framework, the microbiome-mediated modulations of the gut-brain axis is the most imaginable scenario to illustrate this sketchy association. Overall, some viruses in the Herpesviridae family [Herpes Simplex Virus-1 (HSV-1), Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV) and Cytomegalovirus (CMV)] and *Toxoplasma gondii* (*T. gondii*) are commonly judged as pathogenic candidates of this link. These pathogens are claimed to be environmental risk factors for schizophrenia and also have common characteristics such as a relatively slow proliferation and the ability to be virtually invisible from the immune system with special mechanisms to occur latent infections. For this reason, it is thought that the primary and/or latent infections of these pathogens can affect crucial central nervous system (CNS) functions and neurodevelopmental processes. Beyond these pathogenic microbes in the role of schizophrenia, there is another culprit association that is directly and/or indirectly related to the dysbiosis of the microbiome. The human microbiota, recently admit as a powerful game-changer, is irregularly disseminate in the body and includes the residues of all microorganisms. The microorganisms count inhabiting the gastrointestinal tract has been calculated to exceed 10^{14} , which corresponds of ten times more bacterial cells than the number of human cells and over 100 times the number of genomic composition (microbiome) as the human genome. Intestinal microbes play a vital part in maintaining the resistance and the metabolic homeostasis and are also safeguarding against pathogenic microbes. Moreover, the gut microbiota is an important modulator of brain development and subsequent adult behavior. The development of microbiota detection technologies has enabled scientists to explore and understand the gut microbiome from a broader and deeper perspective. It offers for the first time a basis for detailed temporal and spatial analysis, with the potential to transform our understanding of many clinically important problems, such as schizophrenia. As such, the development of next-generation sequencing (NGS) strategies has important implications. Current NGS

systems are able to generate approximately 400 Mb per run, with reading lengths greater than 350 bp, providing a substantial improvement on even the most advanced automated Sanger sequencing systems. Thanks to this highly advanced molecular microbiological assessment, it has become possible to clearly understand the microbiota change in patients with schizophrenia. An increased understanding of the role of pathogens and the microbiome in psychiatric disorders will better guide the development of microbial and immune-based therapeutics for disease prevention and treatment.

Keywords: gut-brain axis, microbes, microbiota, next-generation sequencing, schizophrenia

[Abstract:1221]

1221 - Evaluation of sleep habits in the children of health workers during the covid-19 pandemic

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Background and objective: Sleep, which is one of the basic needs of children, has a great importance for the development of children. Sleep habits; The total time spent in sleep during the day and sleep-related features, waking up, bedtime behaviors, sleep initiation, night sleep interruptions, sleep-related respiratory disorders, parasomnias, waking behaviors and daytime sleepiness are among the attitudes and behaviors related to sleep habits [1].

The Covid-19 pandemic has not only affected the physical health of all humanity, but also negatively affected their mental health. Although the pandemic seems to have affected the middle-aged and elderly society more physically and emotionally, it has also negatively affected the emotional states of our children. Depression, anxiety and sleep disorders caused by their effects have begun to be seen in children.

In a recent study, it was reported that the majority of healthcare workers caring for COVID-19 patients experience insomnia and psychological stress symptoms[2]. It is known that stress in parents affects children's mood, stress level and sleep patterns.

In our study, it was aimed to evaluate the sleep habits of the children of health workers during the pandemic process and to compare the sleep habits of the children who applied to the polyclinic.

Methods: In our study, children and adolescents whose parents were at least one healthcare worker constituted the case group; Children and adolescents who applied to outpatient clinics of Pediatrics of Düzce University Medical Faculty between 30 July and 30 August 2021 formed the control group.

Ethics committee approval of the study was obtained from Düzce University Clinical Research Ethics Committee. Verbal and written consents were obtained from the mothers participating in the study.

Measures

-Sociodemographic Data Form: In the form, the child's age, gender, how many siblings they have, how many children in the family, parents' age, education level, occupation, the type of family. Filled in by parents.

-Children's Sleep Habits Questionnaire (CSHQ): CSHQ, one of the questionnaires whose psychometric properties were determined and whose validity and reliability were determined in preschool and school age children, was designed to investigate children's sleep habits and sleep-related difficulties. Its Turkish adaptation and validity and reliability study was done by Fiş et al. (2010) made by. The scale is filled in by the parent. Values above the cut-off point of 41 points in total are accepted as "clinically significant".

Statistical analyses

Data were entered into a database prepared with SPSS Version 22.0. Quantitative data which are normally distributed are summarized as means and standard deviations. Comparisons of nominal variables between groups were conducted with a chi-square test. Pearson Correlation Test and Spearman Correlation Test were used to evaluate the relationships between the parameters.

For all comparisons, p-values less than 0.05 were considered to be statistically significant.

Results:

138 (63 girls, 75 boys) health worker children and 138 (73 girls, 65 boys) control patients were included in our study. The mean age in the case group was 7.44±3.8; It was found to be 8.86±4.6 in the control group.

The Cronbach alpha value of the CSHQ was found to be 0.915 in our study.

- When the CSHQ values of the case group and the control group were compared in pairwise comparisons; the scores of the case group were found to be higher in all subscales ($p < 0,05$).

In the analyzes of the CSHQ values:

- Bedtime resistance, the sleep anxiety and night waking scores show negative correlations with children's age,
- Daytime sleepiness scores show a positive correlation with maternal age,
- Bedtime resistance and sleep anxiety show a negative correlation with paternal age,
- As the number of children increases, the scores for bedtime resistance, the sleep onset delay, waking up at night and total sleep decrease,
- The problem of sleep onset delay is less in the extended family,
- Parasomnias and daytime sleepiness were found to be more common in boys ($p < 0,05$)

Conclusions: There was no statistically significant difference between the two groups in terms of children's age, gender, age of mothers, age of fathers, number of children in the family and family type. This situation increases the reliability of our study by highlighting the parameters to be investigated.

The average sleep time of the children of healthcare workers participating in the study was 9.52 ± 1.47 , and the average of the children who applied to the polyclinic was 9.6 ± 1.43 . No statistically significant difference was found. In a study conducted in our country, the sleep duration of school-age children was found to be 8.86 ± 1.10 [3]. Children need about 9-10 hours of sleep a night. Most of the children participating in the study can reach the 9-10 hours of sleep they need.

In our study, parasomnias and daytime sleepiness were more common in boys. According to a study, it was determined that girls showed more sleep disorders than boys, and some studies found that boys showed more sleep disorders [4]. Parasomnia is a common benign sleep disorder in early childhood. It is benign because the condition doesn't cause excessive daytime sleepiness or insomnia. Frequent waking, talking during sleep, walking, bruxism, night terrors are examples of these sleep problems.

In our study, it was determined that as the age of the child increased, the scores of bedtime resistance, sleep anxiety, waking up at night and total sleep habits decreased. In other words, it was observed that there was less disruption in sleep habits in older children and adolescents. When the literature was reviewed, in a study comparing the sleep habits of children and adolescents, it was reported that not wanting to go to bed and sleep anxiety were common in school-age children, in line with our study, and it was reported that parents should usually remind them of bedtime.

Increasing awareness, increasing knowledge about disease prevention and methods of coping with the disease during the pandemic period; It can ensure that older children and adolescents are less affected by this process and their sleep habits are less disrupted.

When the relationship between the number of children in the family and sleep habits is examined, it is seen that as the number of children increases, the sleep resistance, the sleep onset delay and the total sleep habit score decrease. It has been observed that children with more siblings have less sleep problems. This may be because it is easier for a child with a sibling to develop pre-sleep routines and older children may set an example for their siblings in this regard.

When the relationship between family type and sleep habits was examined, it was found that children in extended families had less difficulty in diving than those in nuclear families. In a study in India, sleep-related disorders were seen at a higher rate in the nuclear family [5]. The reason for this is that sleep habits in extended families can also be passed on to children through modeling and the number of people who can be considered as models increases.

While children with a score above 41 points in CSHQ constituted 62% of the control group; 97% of the children of healthcare workers. Reasons such as the late bedtime of children who do not go to school due to the pandemic, and the deteriorated sleep quality due to increased anxiety cause sleep habits in all children to deteriorate. It is not surprising that the children of health workers who experience this process more closely will be affected more.

In our study, in terms of sleep habits; statistically significant increase in scores in all subscales of CSHQ in the children of healthcare workers group compared to the control group indicates that, as we expected, sleep habits are more disrupted in this group, which has experienced the pandemic closely. When the literature is examined, there is a limited number of studies examining the effects of the covid pandemic on the mental health and sleep habits of children and adolescents. This situation increases the importance of our study to be included in the literature.

One of the important issues in studies investigating the increasing sleep problems during the pandemic period is that the increasing use of technological devices disrupts sleep habits. The increase in the time spent at home during the pandemic process, the efforts to continue the lessons in the digital environment, and the increase in the contact time with technological devices bring along sleep disorders.

During the pandemic, the increased anxiety levels of health workers due to long working hours, the need to stay in other places for a long time to protect their families, and the fear of infecting their families cause their children to be affected as well. For this reason, regular meetings with the children of health workers will ensure that the negative symptoms that may occur are noticed at an early stage. In addition, improvement studies in order to protect the mental health of employees in health policies and making working conditions more suitable will reduce the negative effects of this process.

Keywords: COVID-19 pandemic, healthcare workers, sleep habits

Table 1. Sociodemographic data of the study groups

	Children of Healthcare Workers (n=138)	Control Group (n:138)
Age	7,44±3,8	8,9 ±4,6
Gender		
Female	63	73
Male	75	65
Mother's Age	36,04±5,6	35,86±6,3
Father's Age	38,67±6,3	40,06±6,9
Type of Family		
Nuclear	118	105
Extended	20	33
Number of Children (Mean)	1,83	2,41

Table 2. Means and standart deviations of the Children's Sleep Habits Questionnaire (CSHQ) total and sub-scores of Children of Healthcare Workers and the control group

Mean (Standard Deviation:SD)	Children of Healthcare Workers(n=138)	SD	Control Mean (n=138)	SD	P Value
Bedtime Resistance	12,7	3,414	8,8	2,261	,000
Sleep Onset Delay	2,41	,701	1,3	,543	,000
Sleep Duration	5,4	1,718	4,1	1,151	,000
Sleep Anxiety	8,3	2,343	6,2	1,960	,025
Night Awakenings	6,6	1,452	4,2	1,238	,012
Parasomnias	5,1	1,831	3,6	1,201	,000
Sleep breathing problems	4,5	1,363	3,6	1,201	,001
Daytime Sleepiness	12,8	3,794	10	2,553	,000
Total Score	61,3	11,954	44	5,982	,000

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[Abstract:1222]

1222 - The role of family psychoeducation and supportive therapies in patients with schizophrenia

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All around the world, almost 26 million people suffer from Schizophrenia (SCZ) that is a public health problem due to disabling and lifelong condition with acute exacerbations. The pathogenesis of SCZ originates from the interactions of biological, genetic, and environmental factors. Therefore, treatment of SCZ should be an integration of psychopharmacotherapy, psychosocial interventions, care of physical health, and treatment of comorbidities. Psychopharmacotherapy, which mainly consists of antipsychotic drugs, is not only the mainframe of the treatment in the acute and long-term treatment of psychosis but also is essential to reduce the frequency and severity of the relapses. Along with pharmacotherapy, psychosocial interventions are very crucial in the treatment of SCZ by potentiating the effect of drugs and focusing on specific areas of personal functioning. To date, a number of studies have emphasized the importance of psychosocial interventions in the treatment of SCZ. In line with the findings of these studies, the international guidelines such as the National Institute for Health and Care Excellence (NICE), Royal Australian and New Zealand College of Psychiatrists (RANZCP), American Psychiatric Association (APA) suggested that all patients with psychosis should undergo psychosocial interventions during their treatment courses. The guidelines recommended adherence therapy, art therapy, cognitive-behavioral therapy (CBT), cognitive remediation therapy (CRT), family interventions, social skills training (SST), psychoeducation, vocational rehabilitation interventions, peer support, self-management interventions, assertive community treatment (ACT) since their high level of evidence. Among them, family interventions and psychoeducation are the most effective and applicable ones. The purpose of the family interventions is to incorporate the patient's family members, caregivers, and friends into treatments and rehabilitation during the acute and maintenance phases of SCZ. These interventions aim to improve the ability of family member/s to support the patient's coping strategies, the family's knowledge about schizophrenia and its treatment, family's problem-solving and communication ability to support patient's recovery by using the instruments of cognitive, behavioral, and supportive approaches combined with the family therapy. On the other hand, psychoeducation is a procedure that aims to provide information to patients with severe and enduring mental illness, including schizophrenia, about their own disease, its treatment, prognosis, appropriate strategies, including coping strategies, and their own rights. These approaches implement to patients both individually or in group and also in the acute phase or outpatient settings. Moreover, given manuals and brochures to patients should be put into the clinical practice in order to provide the ready and accurate knowledge. In conclusion, both of these interventions have the potential to address unmet needs in the treatment of psychosis and to improve the psychosocial functioning of the patients to enhance their rehabilitation from the illness in the long term. If the prominence of psychosocial interventions is furtherly recognized by clinicians, it would succeed the better consequences for patients' interpersonal and occupational functioning.

Keywords: schizophrenia, treatment, psychosocial intervention, family intervention, psychoeducation

[Abstract:1223]

1223 - In the way of values: introduction to acceptance and commitment therapyMerve Terzioğlu¹, Sevinç Ulusoy²*¹Private Practice, ²Bakirkoy Research and Training Hospital*

Acceptance and Commitment Therapy (ACT) is a behavioral psychotherapy approach that is based on functional contextualism as a philosophy and Relational Frame Theory (RFT) as a theory. ACT has been shown to be effective in a wide variety of clinical problems including depression, anxiety, posttraumatic stress disorder, substance use, chronic pain and even psychosis. It doesn't aim to eliminate symptoms, rather to improve psychological flexibility which is defined as 'the ability to contact the present moment more fully as a conscious human being, and to change or persist in behavior when doing so serves valued ends'. Psychological flexibility is established through six core ACT processes. These six processes are:

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

2. Cognitive Defusion: 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. ACT attempts to change the way one interacts with or relates to thoughts by creating contexts in which their unhelpful functions are diminished.

3. Being Present: It can be defined as awareness of the here and now that is experienced with openness, interest and receptiveness. ACT promotes ongoing non-judgmental contact with psychological and environmental events as they occur. The goal is to have clients experience

the world more directly so that their behavior becomes more flexible and thus their actions become more consistent with the values they hold.

4. Self as Context: Self as context is important because one can be aware of one's own flow of experiences without attachment to them or an investment in which particular experiences occur: thus defusion and acceptance is fostered.

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 self as context 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.

At this workshop, we aim to introduce general principles of ACT model based on six core processes using experiential exercises, to teach how to apply basic ACT techniques and to improve clinical skills.

Educational Objectives

At the end of this course, participants will:

1. Gain knowledge and understanding of the contextual behavioral methodology and ACT model
2. Learn how to make behavioral analysis and ACT based case conceptualisation
3. Describe six core therapeutic processes of ACT
4. Learn tools and strategies for each of the therapeutic processes

Keywords: Acceptance and Commitment Therapy, Behaviorism, Psychotherapy

[Abstract:1224]

1224 - Evidence level of cognitive behavioral therapy for obsessive compulsive disorder: face-to-face or internet based interventions? comparative studies

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Keywords: face-to-face therapy, internet-based intervention, obsessive compulsive disorder, online therapy, psychotherapy, tele-psychiatry

[Abstract:1226]

1226 - Schizophrenia at the crossroads of psychiatry and microbiology

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Schizophrenia is a complex disorder that alter the different cognitive domains including perception, emotion, cognition, thinking and behavior. While the lifetime risk in the general population is just below 1%, it rises to more than 40% in monozygotic twins of affected people. Overall, the lifetime risk of schizophrenia was found to be 0.7%. Historically, the causes of schizophrenia have not been clearly understood in studies conducted since its definition, there are neurobiological, genetic, biochemical, neurophysiological, neuropathological and psychosocial theories explaining the pathophysiology. It is known that genetic factors are essential in schizophrenia and the incidence is high in the relatives of the patients. In many studies, it has revealed that genetic factors were alone insufficient to explain the etiology of schizophrenia, and upon this, the role of environmental factors have initiated to be investigated. Factors such as obstetric complications, childhood traumas, sexual abuse, early separation from parents, living in the city and substance abuse have been suggested as the risk factors for schizophrenia. Toward the end of the nineteenth century, schizophrenia was thought to relate to autotoxication characterized by the presence of an infectious reservoir that caused accumulation of toxins systemically, which could ultimately detrimentally affect the brain. In later years, epidemics of psychosis were reported following the 1918 influenza outbreak with additional observations that psychoses often were comorbid to typhoid, tuberculosis, diphtheria, syphilis, and other encephalitis type states, thus supporting the earlier observations. Today, it is known that schizophrenia could be associated

with some neurotropic microbes, based on the information obtained from the epidemics and the outcomes of studies with experimental animals and humans also. The possible role of specific pathogenic microbes that might cause a brain disorder such as schizophrenia is revealed by investigations of neurotropic viruses (herpes simplex viruses, cytomegalovirus, Epstein-Barr virus, measles, and rubella), and alpha-hemolytic streptococci, and finally but most prominently with *Toxoplasma gondii* (*T. gondii*). In studies investigating the relationship between schizophrenia and birth season, it was reported that schizophrenia was observed more frequently among those born in winter and spring, and it was stated that encounters with seasonally distributed viruses in the uterus might be one of the possible causes of this situation. Influenza is thought to be the most likely factor that increases the susceptibility to schizophrenia by affecting brain functions in the prenatal period due to its seasonal spread and neurotropic nature. It has been suggested that brain development, and therefore neurotransmitters, may be affected by inflammatory and/or immunological processes-induced damages, thus increasing the susceptibility to schizophrenia. In future, the surge of interest and effort directed toward understanding the microbiome will hopefully accelerate the improvement of methods for manipulating microbiota and lead to novel agents to prevent and treat schizophrenia.

Keywords: Schizophrenia, psychiatry, microbiology, microbiota, inflammation

[Abstract:1228]

1228 - Moral injury: a transdiagnostic risk factor behind shame and guilt

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One of the new concepts that comes to the fore as Post Traumatic Stress Disorder (PTSD) research increases is moral injury. More commonly used for military personnel, the concept of moral injury has been described as a psychological state resulting from an event in which an act or transgression occurs that opposes an individual's expectations about how one should behave (1). Shay conceptualized moral injury with a betrayal of what is considered right or moral in a "high stakes" situation by an individual in a position of authority (2). Both definitions include feelings of shame and meaninglessness and a violation of one's moral or ethical codes.

Some research suggests that moral injuries events occurred in a war may be an alternative category of traumatic events. In the literature, moral injury and PTSD are discussed as different concepts. The literature distinguishes moral injury from PTSD in that the event related to moral injury does not need to be perceived as life threatening. Although moral injury is a distinct construct, there are similarities in the development of PTSD and moral injury. For example, a traumatic event may violate one's basic assumptions and beliefs about the world and self which can create the feelings of guilt and shame. Basically, all of these are necessarily related to moral injury. Also literature show the association between adverse out-comes such as suicide, depression, substance use disorders, PTSD, burn-out and moral injury.

The fact that moral injury is associated with many diagnostic categories and has common aspects with them brings to mind the idea that it can be considered as a transdiagnostic concept. With the efforts to explain moral injury from this perspective, concepts such as "morally injurious event (MIE)" and "moral pain" have emerged. Moral pain is the experience of dysphoric moral emotions and cognitions (e.g., self-condemnation) in response to a morally injurious event. Intense guilt, shame, and anger are central components of moral pain. This moral pain occurred after exposure to MIEs is a natural, and non-pathological consequence and is not enough to cause moral injury. Moral injury occurs as a result of unworkable attempts to manage, control, or cope with the experience of moral pain (3).

In this panel, it is aimed to define the concept of moral injury from a functional contextualistic perspective and explain how it occurs in different problem areas.

Keywords: moral injury, shame, post traumatic stress disorder

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[Abstract:1230]

1230 - Behavioral problems in children of parents with substance use disorders

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Substance use disorders (SUD) characterized by recurring alcohol or drugs (or both) use and consequent inability to control substance use; failing to meet their obligations at work, home or school; be unhealthy; and spending more time obtaining, using, or recovering from the effects [1]. The effects of a SUD are felt by the entire family. Children with parents with SUD are more likely to have lower socioeconomic status, increased difficulties in academic and social settings, and family functioning than children with parents without SUD [2]. Parents with substance use disorders will have their own affect dysregulation that may precede or result from substance use. This will make it difficult for children and adolescents to acquire healthy emotion regulation skills. This can result in children and adolescents at increased risk for internalizing problems such as depression, anxiety or externalizing problems such as oppositional behavior, outbursts, aggression, impulsivity and substance abuse. A number of environmental mechanisms contribute to this process, such as exposure to inadequate parenting, family conflicts, and high levels of life stress [3]. A parent with a substance use disorder is three times more likely to abuse their child physically or sexually. Abused children are more likely to have externalizing disorders such as anger, aggression, behavior and behavior problems. Children of parents with SUD may be at risk for externalizing problems (behavioral disorder, antisocial personality disorder, and alcohol and drug use disorders) because their parents pass on a “general vulnerability” to externalizing disorders [4]. In addition to genetic risk, parental SUD may also contribute to the development of externalization problems by disrupting the home environment. For example, substance use may interfere with caregivers’ ability to maintain supportive parent- child interactions [5]. Although genetic factors play a role in the transmission of internalizing behavior problems, most of the variance in internalizing disorders cannot be explained by genetic factors. Internalization problems among children of parents with SUD may be more influenced by the disrupted family environment [6]. Individuals with SUD cannot be understood and effectively treated without considering the impact on the whole family. Treating parents with SUD and improving parenting in these families will contribute to the reduction of the risk of internalization and externalization disorders in children.

Keywords: Externalizing disorder, internalizing disorder, substance use disorder, children, behavioral problems

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[Abstract:1232]

1232 - Pharmacological treatment of pathological laughing and crying

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The main aim in the treatment of pathological laughing and crying (PLC), is to reduce the severity and frequency of the disease. The neurotransmitters and neuromodulators involved in PLC pathophysiology could potentially include any that play a role in emotion and its expression, including serotonin, norepinephrine, glutamate, dopamine, acetylcholine, GABA, adenosine, corticotropin-releasing hormone and corticosteroids. Drugs used in pharmacological treatment are serotonin reuptake inhibitors (SSRI), serotonin noradrenaline reuptake inhibitors (SNRI), tricyclic antidepressants (TCA) and a few other pharmacological agents [1]. The therapeutic efficacy of these pharmacological agents used in the treatment of PLC was obtained from open-label studies and case reports. Most of these studies were conducted in patients with multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS), and stroke. SSRIs and TCAs are the most frequently preferred off-label agents for treatment. The preferred SSRIs in the treatment of PLC are citalopram, fluoxetine, sertraline, fluvoxamine and paroxetine. SNRIs are duloxetine and venlafaxine. TCAs are nortriptyline, amitriptyline, and imipramine. Other used pharmacological agents are mirtazapine, lamotrigine,

levodopa and amantadine. In 2010, dextromethorphan/quinidine (DMQ) became the first FDA-approved therapy for the treatment of PLC. This compound contains 20 mg of dextromethorphan and 10 mg of quinidine. Dextromethorphan is a cough suppressant. Quinidine is a class Ia sodium channel–blocking antiarrhythmic. Dextromethorphan acts as a non-competitive glutamate antagonist on NMDA receptors and an agonist on sigma receptors. When administered alone, it is rapidly metabolized by first pass metabolism through the cytochrome P450-2D6 system. Dextromethorphan often binds to receptors in the brainstem and cerebellum. It exerts its therapeutic effects by modulation of neurotransmission in cortico-pontocerebellar circuits, which is thought to be an integral part of the pathophysiology of PLC. While the main therapeutic component of DMQ is dextromethorphan, quinidine inhibits the CYP450 enzyme CYP2D6, which rapidly metabolizes dextromethorphan, thereby increasing the plasma concentration of dextromethorphan and allowing the drug to be used at lower doses. The recommended use by the FDA is 1 capsule daily for 7 days, then 1 capsule every 12 hours. Side effects of the drug are dizziness, nausea, headache, fatigue, dry mouth and diarrhea. One of the properties of quinidine to consider is its ability to increase the QT interval. The use of DMQ is contraindicated in patients with current prolonged QT interval, congenital long QT syndrome, history of torsades de pointes, heart failure, and current use of QT prolonging drugs metabolized by CYP2D6, such as pimozide or thioridazine. It is recommended to obtain an electrocardiogram (ECG) before starting DMQ and another ECG 3-4 hours after the first dose. Also, electrolyte abnormalities such as hypokalemia or hypomagnesemia should be corrected before they begin[2]. PLC can impact quality of life and disease burden in patients with many commonly encountered neurological disorders, independent of disturbances of mood. Although the mechanisms are not fully understood, serotonergic and glutamatergic transmission appear to play major roles. By managing PLC with an appropriate pharmacologic approach, clinicians can have a meaningful impact on symptoms that are socially embarrassing and functionally limiting for these patients[3].

Keywords: pathological laughing and crying, pharmacological treatment, SSRI's, SNRI's, TCA's, dextromethorphan/quinidine

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[Abstract:1233]

1233 - Approach to the patient with treatment-resistant schizophrenia

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Schizophrenia is a chronic, progressive, and severe mental disorder characterized by positive, negative, and cognitive symptoms, affecting approximately 1% of the world's population and can lead to significant functional impairment. Antipsychotic medications are the first-line treatment for schizophrenia. Most patients with first episode psychosis show significant improvement in psychotic symptoms in response to antipsychotic medication. However, approximately 30% of patients diagnosed with schizophrenia do not respond to treatment with non-clozapine antipsychotic drugs.

In 2017, the Treatment Response and Resistance in Psychosis (TRRIP) Working Group published consensus-based criteria for the diagnosis of treatment resistant schizophrenia. The definition of TRS includes no significant improvement in positive symptoms after treatment with 2 different non-clozapine antipsychotic drugs at therapeutic dose (equivalent to ≥ 600 mg chlorpromazine), adequate duration (mean 4-6 weeks) and documented adherence. Therefore, TRS treatment has focused on different treatment modalities. These are the augmentation of clozapine with other antipsychotics, mood stabilizers or non-pharmacological treatments.

Clozapine is currently the only drug with FDA approval for TRS. However, up to 60% of TRS patients do not respond to clozapine. Recently published meta-analyses indicate limited high-quality evidence supporting antipsychotic augmentation. In addition, augmentation with antipsychotics increases the risk of side effects. Data on augmentations with mood stabilizers are limited. Glutamatergic agents such as D-cycloserine, D-serine, glycine, and sarcosine have also been studied, but have not shown promising results. The high risk of side effects of polypharmacy compared to monotherapy supports non-pharmacological augmentation modalities.

Brain stimulation procedures are one of the non-pharmacological approaches in Treatment-Resistant Schizophrenia. These are procedures such as electroconvulsive therapy (ECT), repetitive transcranial magnetic stimulation (rTMS), and deep brain stimulation (DBS). There is evidence to support the combination of ECT with Clozapine. rTMS has been studied on certain symptoms, such as persistent auditory hallucinations, and the

results are promising. DBS is an invasive treatment that directly targets specific brain regions. More studies are needed on the effectiveness of brain stimulation procedures such as rTMS and DBS.

Psychotherapy can reduce symptoms in TRS patients, but it may take time to be effective. Psychosocial interventions given alone are not effective enough in schizophrenia. Psychosocial interventions (for example, family psychoeducation, cognitive-behavioral therapy, social skills training) reduce patient/family stress, increase cohesion and help patients stay in the community.

Another important issue in treatment management in TRS patients is the concept of pseudoresistance. Causes of pseudoresistance include medication nonadherence, pharmacokinetic factors leading to low drug serum levels (eg, poor drug absorption, drug-drug interactions, changes in metabolism), and comorbidities that affect treatment response (eg, substance use disorders, mental disorders, other medical conditions).

Early diagnosis of TRS patients is important in treatment management, because early detection can help reduce the duration of resistant psychotic symptoms and improve response to treatment. However, patients who do not respond to treatment should be reassessed to exclude causes of pseudoresistance. Finally, the treatment plan should be reevaluated in TRS patients and alternative pharmacological or psychosocial interventions should be considered.

Keywords: Schizophrenia, treatment resistant, antipsychotic, clozapine, treatment response

[Abstract:1234]

1234 - Immunologic findings in attention deficit and hyperactivity disorder

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Attention-deficit/hyperactivity disorder (ADHD) is a relatively common neurodevelopmental disorder of childhood onset. Although a strong neurobiological basis has been demonstrated, the exact etiology of ADHD is not fully understood. Studies have shown that both genetic and environmental factors contribute to the etiology of ADHD.

Among neuropathological mechanisms of ADHD, there has been a growing interest in the immune system. Finding about role of inflammation in ADHD comes mainly from observational studies showing a strong comorbidity of ADHD with inflammatory and autoimmune disorders; studies evaluating serum inflammatory markers; and genetic studies.

Children with ADHD are more likely to have asthma, allergic rhinitis, atopic dermatitis. Higher comorbidity of ADHD with inflammatory disorders may propose a range of underlying mechanisms such as an altered immune response, common genetics, and environmental links. Buske-Kirschbaum et al propose that the release of inflammatory cytokines affect maturation of prefrontal cortex regions and neurotransmitter systems involved ADHD pathology. Several maternal somatic diseases with immune components were found to increase the risk of ADHD in offspring. Ghassabian et al found that children of thyroid peroxidase antibodies positive mothers in early pregnancy were at a higher risk of attention deficit/hyperactivity problems. These antibodies could play a part both in the development of autoimmune thyroid disease causing maternal hypothyroidism and in the fetal neuronal development leading to ADHD. During an atopic episode altered neuronal activity was detected by using functional magnetic resonance imaging in the prefrontal cortex which is known to subserve executive cognitive functions. Increased serum levels of antibodies against Purkinje cells, IL-6, IL-10, antibasal ganglia antibodies, antibodies against the dopamine transporter have also been detected in ADHD.

Although genetic studies support role of inflammation in ADHD, there is no consensus about which inflammatory-related genes predispose to ADHD. It was found an association of ADHD with genes of the major histocompatibility complex. Interleukin-1 β (IL-1) has been shown to plays a key role as a differentiation factor promoting maturation of mesencephalic progenitor cells into dopaminergic neurons. Segman et al investigated the role of interleukin-1 receptor antagonist (IL-1Ra) which is an endogenous antagonist at IL-1 receptors which are distributed in the brain, serving to balance IL-1 agonist action. They found that IL-1Ra 4-repeat allele was associated with a significantly increased risk for ADHD and IL-1Ra 2-repeat allele was associated with a significantly decreased risk for ADHD. Although some studies have found association immunology with ADHD, well-designed studies are still needed to research neuropathological mechanisms of ADHD.

Keywords: Attention-deficit/hyperactivity disorder, Autoimmune, Immunology

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[Abstract:1235]

1235 - The use of antipsychotics for children and adolescents with epilepsy and comorbid psychiatric disorders

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Psychiatric comorbidity is common in people with epilepsy such as psychoses, depression, and anxiety. Also, psychotic disorders and psychiatric conditions that require the use of antipsychotics are more common among individuals with epilepsy than in the general population. Antipsychotics, may give rise to some concern in clinical practice because of their known ability to reduce seizure threshold and to provoke epileptic seizures. Almost all first- and second- generation antipsychotics are implicated in increasing the risk of epileptic seizures. Since antipsychotics vary in their affinity for dopamine receptors, their effects on seizure threshold are also different. Various dopamine receptors cause opposing effects on neuronal excitability and seizure susceptibility.

The incidence of unprovoked seizures in the general population ranges from 0.07% to 0.09%, while seizure incidence rates in patients treated with therapeutic doses of antipsychotics have been reported to range from approximately 0.1% to approximately 1.5%. In patients who have taken an overdose, the seizure risk rises markedly, achieving values of 4 to 30%. Apart from drug-related factors, the occurrence of seizures during psychotropic drug therapy is significantly affected by the presence of seizureogenic conditions such as the individual's hereditary characteristics, history of epilepsy, and brain damage.

Two factors have been found to increase the likelihood of seizures with first-generation antipsychotics: administration of high doses and the time interval during which the drug is used. It is known that seizures occur in 9% of patients treated with high doses of first generation antipsychotic drugs, 0.7% of patients at moderate doses and 0.3% of patients at low doses. Chlorpromazine is a first-generation antipsychotic thought to be associated with a higher risk of provoking epileptic seizures. Piperazine phenothiazines (acetophenazine, fluphenazine, perphenazine, prochlorperazine, and trifluoperazine) exhibited less potent epileptogenic activity, while the lowest epileptogenic effect among first-generation antipsychotic drugs was observed with thioridazine and haloperidol. Haloperidol has been proven to not significantly lower the epileptic threshold, so it should be considered in the treatment of acute and chronic psychoses in people with epilepsy.

It is reported that there is an incidence of seizures of 0.3-0.9% for most second-generation antipsychotic drugs. The anticonvulsive effect of dopamine is widely known. Selective drugs for mesolimbic dopamine receptors, eg. clozapine, olanzapine and quetiapine show more intense proconvulsive effects than drugs with a low affinity for the D2 receptor, such as risperidone [20, 21]. Olanzapine and quetiapine showed seizure rates of 0.9%, while risperidone showed even lower rates (~0.3%). Aripiprazole has been associated with a seizure rate of 0.1%. Aripiprazole and risperidone are among the second generation of antipsychotic drugs with the lowest incidence of seizures. Clozapine, one of the second-generation antipsychotics, is known to carry a greater epileptogenic risk than first-generation antipsychotics.

To reduce the risk of seizures, it is essential to start with a small dose of antipsychotic medication, titrate slowly, monitor serum levels of prescribed medications, and keep medication at the minimum effective dose.

Keywords: Adolescent, Antipsychotic, Children, Epilepsy

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[Abstract:1237]

1237 - Covid 19 and schizophrenia

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COVID-19 has been first seen in Wuhan, China, and on March 2021 has been announced as pandemic by World Health Organization. There has been many studies and meta-analyses to understand the link between COVID-19 and mental disorders. It has been well-known that the infected patients with schizophrenia have worse prognosis, than general population. Many studies have aimed to evaluate the necessity of pointing the schizophrenia as a high risk group for severe COVID-19.[1] Most of them have a common result that the infected patient with schizophrenia have a higher risk of susceptibility of COVID-19 infection, illness severity, hospitability and mortality compared to general population. Individuals with schizophrenia, and other severe mental disorders, have medical comorbidities such as dyslipidemia, smoking, diabetes, hypertension, chronic respiratory diseases and end stage kidney diseases, which are also common risk factors for severe COVID-19 infection. Furthermore schizophrenia itself and antipsychotics can enhance the risk of pneumonia and hypercoagulation, which are most common reasons of deaths of COVID-19 infection. In addition to that individuals with schizophrenia are in a disadvantaged position to apply care units, mostly because of barriers to access.[2] According to studies, patients with schizophrenia have been less informed about COVID-19 infection and vaccination by doctors compared to general population. While there has been lack of knowledge about treatment of COVID-19, main strategy was social isolation, which has many psychological effects both on general population and specifically individuals with schizophrenia. Lack of social contact has brought loneliness, sleep disorders, anxiety, depression, alcohol and drug misuse and even suicidal ideations. Beside these factors, schizophrenia comes with negative symptoms which are drug resistant and which need social interaction to be controlled. Routine daily activities and interaction with society keep these negative symptoms under control and help patient to integrate. As negative symptoms keep worsening, the risk of exacerbation of psychotic symptoms and suicidality grow. In addition to that, many appointments have had to be postponed, and medical examinations have failed to be executed, such as blood counts for clozapine, lipid profiles for all antipsychotics. On the other hand, COVID-19 infection itself or treatment alternatives, which consist of immunomodulators and steroids, can cause neuropsychiatric symptoms, altered mental status, delirium, catatonia and specifically psychotic symptoms. Infection or treatment related psychotic symptoms can response antipsychotics rapidly. These have vital significance taking schizophrenia as a high risk for COVID-19 infection, informing well about COVID-19 infection and vaccination, having alternative methods to accomplish appointments and considering worse prognosis for infected patients with schizophrenia and acting accordingly. In addition to all these, the associations between viral infections and neuropsychiatric diseases, immunology and schizophrenia are intriguing topics, have been discussed for years. COVID-19 pandemic has a significant role to investigate some of the questions about pathogenesis and risk factors for neuropsychiatric diseases, especially schizophrenia.

Keywords: COVID-19, schizophrenia, high risk, mortality, mental health, neuropsychiatric disorders

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[Abstract:1239]

1239 - Let's welcome the robots because now they're our new colleagues

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Research in artificial intelligence has gradually increasing in mental health field, such as in psychiatry, psychology, and psychotherapy [1]. It is remarkable that, artificially intelligent virtual and robotic agents are not only available for relatively low-level elements of mental health support, but also offered exclusively by highly trained, skilled health professionals such as psychotherapists [2].

The robotics sector, particularly on medical area, is expanding rapidly. Robots are affording an improved quality of life and an increase in independent living for people with physical disabilities in particular. Additionally, robots may also help to people with mental health disorders, and also to their caregivers in near future [3]. To date, studies have investigated the position of robots in decreasing stress, loneliness, and aggression and in improving mood and social interaction [4,5]. Additionally, the usefulness of robots are also being studied in a variety of psychiatric disorders and symptoms, such as mood and anxiety disorders, children with disruptive behaviors [6]. Studies showed that robots also provide some opportunities for neurodevelopmental disorder such as Autism Spectrum Disorders [7]. Currently, the quality of research on established Artificial Intelligence in psychiatry, psychology, and psychotherapy is diverse, and there is a clear need for more robust studies, including Randomized Control Trials, on the benefits and potential harms of current and future applications [1]. Consequently, Artificial Intelligence and robots are very new study subjects on mental health, so we need more studies for obtaining evidence.

Keywords: Artificial Intelligence, Child and Adolescent Psychiatry, Robot

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[Abstract:1240]

1240 - The use of induced pluripotent stem cells in psychopharmacological research

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The programming which occurs with the rearrangement of the chromatin includes cell nucleus transplant, induced pluripotency and cellular fusion processes. One Induced Pluripotent Stem Cell (iPSC) can differentiate into around 200 different cells.

iPSCs are lab-grown and custom programmed cells. These cells are made to be used in cellular therapy and regenerative medicine. In the case of functionality, Embryonic Stem Cells (ESC) are pluripotent. Including the psychopharmacological therapies of psychiatric illnesses, studies with iPSC are laying the groundwork for researches that will illuminate the pathophysiology of many cases. Because iPSC are applied in an autologous manner, any chance of the transplantation being rejected with an autoimmune response is out of the question. However, one point of concern is that the medium affects the time and efficiency of the iPSC's yield significantly. Stem cells show a trait known as asymmetric division. This trait is not present in muscle and blood cells as well as the nerves. Internal and external signals are important during the differentiation of the stem cell. The internal signals are in control of the cell's genome. Whereas the external signals are in control of external factors. The interaction of the cell's internal and external signals and epigenetic factors affect the cell's entry into the differentiation pathway.

In cases that use stem cells in psychiatric treatments; the somatic cells are converted to iPSCs, allowing us to monitor the neurogenesis and understanding the patient's pathophysiology. This approach can often be revealing and supportive to psychopharmacological therapy methods. Factors that influence neurogenesis, regulate glial and neural differentiation and proliferation. There are studies present for understanding the etiopathogenesis of depression and developing anti-depressant therapies. Decreased and abnormal neurogenesis in depression is often observed. Though re-induction of neurogenesis in anti-depressants is possible, it cannot be achieved all the time. iPSC have been used for schizophrenia studies since 2011. The most accepted view in the etiology of schizophrenia is that it is neurodevelopmental. The onset of the disease should be sought in the early developmental stages. Other risk factors causing it are genetics, hypothalamo-pituitary-adrenal axis disorder, brain plasticity dysfunction and immune system disorder. Chronic neuroinflammation in schizophrenia causes neuron loss and increased neuroinflammation. At this moment, the most important neuroprotection we have is neurogenesis. Limitation of neurogenesis causes progression of schizophrenia. In studies conducted in patients with anxiety disorder, the behavior of stem cells in peripheral blood and the factors regulating them were examined. Certain proteins were lower in the patient group than in the control group. It is known that patients with anxiety have different regenerative capacities than patients with psychotic and affective disorders. At the same time, electrophysiological studies are carried out using iPSC-derived neurons obtained from individuals suffering from alcohol addiction. When we look at the literature, pluripotent stem cell studies that support the psychopharmacological treatment process and explain the pathophysiology and therapy of the disease; we can see that they are quite promising.

Keywords: anxiety disorder, iPSC, psychopharmacology, schizophrenia

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[Abstract:1241]

1241 - Management of clozapine-induced agranulocytosis

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Clozapine is a second-generation antipsychotic mainly used for treatment-resistant schizophrenia.

Even though agranulocytosis is not one of the common side effects of clozapine, it is one of the most severe (Which once caused its withdrawal from markets.)

Agranulocytosis is defined as absolute neutrophil count lower than $500/\mu\text{L}$ ($=0.5 \times 10^9/\text{L}$), and neutropenia can be defined as absolute neutrophil count lower than $1500/\mu\text{L}$.

Clozapine-induced agranulocytosis appears to occur in approximately 0.8% of patients using clozapine. Although there are not enough studies on its use in adolescents, rates similar to adult studies have been found.

Because agranulocytosis is a severe side effect, complete blood count follow-up is mandatory in many countries. In Turkey, it is recommended that everyone who is started on clozapine should have a weekly complete blood count for the first 18 weeks and then every four weeks. Studies have shown that agranulocytosis develops in a dose-independent manner and generally develops within an average of 56 days.

White blood cell counts can be divided into three categories. The first category is when the white blood cell count is higher than $3500/\mu\text{L}$. In the first category, it is safe to use clozapine. The second category is when the white blood cell count is between 3000 and $3500/\mu\text{L}$. In this case, a blood film should be done. If the absolute neutrophil count is lower than 1500 , clozapine must be discontinued. The third category is when the white blood cell count is lower than 3000 . In this category, clozapine must be discontinued.

Agranulocytosis could present with fever, mouth ulcers, sore throat, or in some cases, it could be completely asymptomatic. When agranulocytosis develops, in addition to stopping clozapine, the patient should be consulted to hematology. Moreover, if possible patient should

be transferred to a hematology unit with isolation. Bone-marrow aspiration is not mandatory and should be on-need basis. Antibiotics should be given to the patient if fever or signs of infection is presented.

Granulocyte colony-stimulating factor (G-CSF) and granulocyte-macrophage colony stimulating factor (GM-CSF) usage in clozapine-induced agranulocytosis can shorten agranulocytosis duration. However, studies related to G-CSF/GM-CSF use are inadequate and more studies are needed.

In cases where white blood cell count begins decreasing or a rechallenge for a previously stopped clozapine due to neutropenia or agranulocytosis, augmenting with lithium is found to be beneficial for white blood cell counts. Once added, lithium can increase white blood cell count.

In cases where other treatment options fail to alleviate schizophrenia symptoms and in cases where clozapine is discontinued not because of agranulocytosis but because of leukopenia or moderate neutropenia, a rechallenge for clozapine can be tried. When a rechallenge is conducted, careful planning is needed.

Clozapine being one of the most powerful weapons at our disposal against treatment-resistant schizophrenia, is indispensable. For this reason, clinicians must know about how to monitor and manage its potentially life-threatening side-effect agranulocytosis.

Keywords: Clozapine, Clozapine-induced agranulocytosis, Clozapine side effects, Neutropenia

[Abstract:1242]

1242 - Cognitive behavioral therapy versus pharmacological treatments for obsessive compulsive disorder

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Obsessive-compulsive disorder(OCD) is a mental disorder characterized by obsessions with intrusive thoughts, images, feelings and repetitive behaviors or mental acts to reduce the distress. The most common treatment approaches for OCD are Cognitive Behavioral Therapy (CBT), drug treatments or a combination of both. Serotonin reuptake inhibitors(SSRIs) and clomipramine are frequently used in drug treatments. Combined drug treatments with antipsychotics added to SSRIs are also performed depending on the severity of the disease and treatment resistance. Other drugs that have been shown to be effective in the treatment of OCD in controlled studies are fluoxetine, fluvoxamine, sertraline, and paroxetine. Behavioral therapy in OCD is a well-known and proven effective treatment that has been used frequently for a long time. The two main components of treatment are exposure and response prevention (ERP). Cognitive therapy focuses on obsessive beliefs. It is aimed to identify these beliefs and to find functional alternatives. According to controlled studies, it has been stated that pharmacotherapy, cognitive behavioral therapy or a combination of these two significantly reduce OCD symptoms. Cognitive behavioral therapy can be used as the first choice in mild and moderately severe cases. There are studies showing the effectiveness of CBT added to treatment in cases resistant to pharmacotherapy. Factors such as the patient's characteristics, severity of symptoms, and resistance to treatment can determine how the treatment will be.

Foa et al. concluded that intensive ERP might be superior to clomipramine and, by implication, to monotherapy with other SSRIs. In this study comparing drug therapy, cognitive behavioral therapy and combined therapy, it was found that 86% of patients who received cognitive behavioral therapy, 79% of those who received combined therapy, and 48% of those who received drug therapy improved after 12 weeks of treatment.

In a meta-analysis study covering the years 1993-2014, it was seen that the only effective psychological treatment was cognitive behavioral therapy. In this study, the combination of CBT and antidepressant was not found to be more effective than the combination of cbt and placebo. In this meta-analysis, it was seen that there was no significant difference in studies comparing individual CBT and group CBT. In addition, no significant difference was found between ERP and cognitive therapy.

In a study comparing drug therapy, CBT, and combined therapy, the greatest effect was observed in the combined therapy group at the end of 16 weeks. The effectiveness-enhancing role of cognitive behavioral therapy is frequently seen in studies.

CBT is used as first-line therapy in many countries. It is an effective treatment method in the first step, especially in mild and moderate cases. In the efficacy studies with SSRIs, it is seen in the studies that the CBT added to SSRIs significantly increases the effectiveness. The fact that CBT is more costly and requires long-term participation explains that it comes after pharmacotherapy from time to time in effectiveness studies.

Keywords: cognitive behavioral therapy, combined therapy, obsessive compulsive disorder, pharmacotherapy, selective serotonin reuptake inhibitors

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[Abstract:1243]

1243 - Management of substance use disorders in pregnant women

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Substance use during pregnancy is a significant issue that can lead to negative outcomes for both pregnant women and their babies. A number of methods that can investigate substance use disorders such as interviews with pregnant women, screening scales, and laboratory tests are used during pregnancy. Although there is not enough consistent evidence about the threshold values for substances and which substance is the most harmful, pregnant women should be examined in detail on many issues regarding substance use in the pregnancy period. Every method that investigates and intervenes in substance use during pregnancy should be culturally appropriate for the pregnant woman and the people who will provide her with social support. A detailed history of substance and alcohol use and psychological trauma should be obtained from pregnant women. Awareness of the FASD diagnostic criteria ensures that both babies with fetal alcohol spectrum disorder (FASD) and their mothers at risk of alcohol use are recognized. Counseling pregnant women with substance use without dependence reduce long-term adverse events. Pregnancy conditions and the feeding options of the baby after birth should be discussed when caring for pregnant women who use substances. The standard approach in opioid use disorders during pregnancy is opioid agonist treatments such as methadone, buprenorphine, and sustained-release preparations. Healthcare professionals have a central role in the management of substance use during pregnancy and should be aware of all possibilities for screening, recognition, counseling, and treatments.

Keywords: Perinatal Psychiatry, Pregnancy, Substance Use Disorder

[Abstract:1245]

1245 - The use of antidepressants for children and adolescents with both epilepsy and comorbid psychiatric disorders

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Psychiatric disorders, which are comorbid with epilepsy, in child and adolescents are frequently observed. This bidirectional relationship between psychiatric disorders and epilepsy is considered to be associated with overlapping pathogenic structural brain abnormalities, psychosocial problems related to epilepsy and various side effects due to antiepileptics. The presence of comorbidity can change the efficacy and safety of antiepileptic drug use and thus, the patients' quality of life. Hence, differential diagnosis and management of comorbid psychopathology is of great importance. Mood disorders, anxiety disorders, attention deficit and hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) are relatively common psychiatric comorbidities in childhood epilepsy. Lifetime prevalence of mood disorders in epilepsy patients is 11-62%. Depression is more common in patients with temporal lobe epilepsy and treatment-resistant cases. The level of hippocampal atrophy in patients with temporal lobe epilepsy was found to be associated with the severity of depressive symptoms. Furthermore, individual suffering epilepsy and depression are more likely to experience the side effects of antiepileptics and have worse outcomes after epilepsy surgery. Symptoms regarding cognitive impairment, including attention and memory deficits, might also be associated with both depression and side effects of

antiepileptics. The rate of suicide attempts, which are 4-5 times more frequent in epilepsy patients than general population, may increase up to 25 times in those with complex partial seizures and temporal lobe epilepsy. Depression is one of the most important factors reducing the quality of life in epilepsy patients. Mood disorders may be seen with an atypical clinical presentation defined as “interictal dysphoric disorder”. Another common comorbid psychopathology that requires antidepressant pharmacotherapy is anxiety disorders. In a study of patients with epilepsy, the lifetime prevalence of anxiety disorders, whose ratio ranges from 2% to 5% in the general population, was between 11% and 15%. Serotonin neurotransmission dysregulation has been shown to be associated with higher anxiety levels in epilepsy. Anxiety, irritability and rumination are common in children with absence seizures. Antidepressants can increase the risk of seizures in a dose-dependent manner. Seizure associated with antidepressants were observed to be more frequent in cases with a neurological disease other than epilepsy, EEG disorder and family history. Amoxapine, bupropion, clomipramine and maprotiline can trigger seizures even in therapeutic range. Selective serotonin reuptake inhibitors - SSRIs (especially fluoxetine and fluvoxamine) increase blood levels of antiepileptic drugs (e.g., carbamazepine, phenytoin, ethosuximide, phenobarbital) inhibiting CYP-1A2, 2C9/19 and 3A4 enzymes. Serotonin and noradrenaline reuptake inhibitors (especially venlafaxine and bupropion) and tricyclic antidepressants can increase the frequency of seizures reducing the epilepsy threshold. In cases with treatment-resistant epilepsy, SSRIs may reduce the frequency of seizures regardless of psychiatric improvement. It is largely suggested that the change in seizure frequency, in patients under additional antidepressant treatment, is due to the course of the primary disease and possible drug interactions. Antidepressants may also enhance some of the antiepileptics side effects, such as weight gain and sexual dysfunction. Even though the data on atomoxetine use with a comorbid epilepsy is limited, it is accepted that atomoxetine reduces ADHD symptoms in epilepsy cases and does not have an impact in the number of seizures. A detailed mental status exam, drug interactions, course and treatment history of epilepsy should be taken consideration together while selecting an antidepressant.

Keywords: antidepressants, epilepsy, psychopathology

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[Abstract:1247]

1427 - A new approach to dreams in psychotherapy: phenomenological dream-self model

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Background and objective: No doubt that our experience in our everyday life is our “own experience”. In our waking experiences we are ‘ourselves’ in sense of self. In spite of this clearance of our awakening experiences, we are confused about dreams. Dreams first appear to us as completely different, unclear or mysterious phenomena from our waking experiences. The way to understand that dreams are also our experiences is relied on to understanding that there is also a self in dreams.

This dream self is like the waking self, it is at a “moment”, in a “place”, in “perception”, and in “emotion”. This dream self is always in an intentionality for an object just like the waking self. Approaching dreams through this phenomenal self can contribute to a better understanding of consciousness and subjectivity. More importantly comprehending dreams through the phenomenological self makes it possible to work more effectively, more easily, with dreams in psychotherapy.

Phenomenology is a tradition of thought initiated by E. Husserl, the student of F. Brentano, a descriptive psychologist. Phenomenological psychotherapy is inspired by the theoretical infrastructure of phenomenology, which is the discipline of philosophy. First, the ‘intentionality’ of the client is very important in phenomenological psychotherapy. Second, the motor of the process in psychotherapy is the description. Meaning arises as a result of this description, which leads to the development of new meanings and understandings. Finally, phenomenological reduction in psychotherapy implies that the psychotherapist should bracket (epoché) his/her own experiences, assumptions, psychopathology and theoretical summation in his/ her relationship with the client, and he/she should reveal some of the themes at the level of consciousness of the relationship the client establishes with the world.

Methods: PDSM is a four-stage model. According to this model, in the first stage of the dream work, the life of the dream self is described in terms of feelings, intentions and behaviors without any interpretation. In the second stage, it is described that how would the waking self experience or behave in the situations similar to dream experiences. In the third stage, the dream and waking selves are compared over the descriptive or data in the first two stages. In the fourth stage, the possibilities of new and different meaning layers of the dream life are searched

based on the description in the first stage and the life story of the client. The model requires the therapist stays on the phenomenological descriptive attitude in the first three stages.

Results and conclusions: In conclusion, we think that PDSM is a practical and effective dream model for clinicians who want to perform self-consciousness-based dream work in psychotherapy practices. In future studies, we aim for qualitative and quantitative researches on the clinical benefits of PDSM.

KEYWORDS: dream Works, phenomenological dream self-model, psychotherapy, self

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[Abstract:1249]

1429 - Cbt vs other psychotherapeutic interventions for ocd

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Obsessive-compulsive disorder (OCD) is one of the most debilitating psychiatric disorders. It usually has a chronic course and is related with a significantly reduced quality of life. Cognitive behavioral therapy (CBT) with exposure and response prevention (ERP) remains the first-line intervention among the evidence-based, nonpharmacological treatments for OCD. However, about %30 of OCD patients, do not respond to CBT. Recently, various kinds of psychotherapies like Acceptance and Commitment Therapy (ACT), Mindfulness-based Cognitive Therapy (MBCT), Metacognitive Therapy (MCT) and Eye Movement Desensitization and Reprocessing (EMDR) were studied in the treatment of OCD. In a study in which ACT was compared with ERP and Cognitive therapy (CT), there were no significant difference between groups. Although the empirical base of MBCT in the treatment of OCD is currently limited by the small number of studies and sample sizes, studies showed the effectiveness of MCBT in OCD patients. To our knowledge, there is no comparison of MCBT with CBT. In the metacognitive model of OCD, the experience of intrusive thoughts is related to underlying metacognitive beliefs. The two domains of metacognitive beliefs include (1) beliefs about the significance or dangerousness of intrusive thoughts and (2) beliefs about the need to perform rituals. Metacognitive beliefs lead to maladaptive thinking referred as the cognitive attentional syndrome (CAS). The CAS in OCD consists of worry, rumination, threat monitoring and rituals. Both clinical and non-clinical studies showed that metacognitive beliefs in OCD are related to OCD symptoms, have predictive value for obsessive-compulsive symptoms independent of non-metacognitive beliefs like responsibility and perfectionism, and have a specific effect to explain obsessive-compulsive symptoms in OCD patients. In a study which compared group CBT to group MCT for OCD, although both CBT and MCT were effective, MCT showed more response rates than CBT. In a study that compared EMDR and CBT for OCD, there was no significant difference between groups according to clinical outcomes.

Keywords: Obsessive Compulsive Disorder, Cognitive Behavioral Therapy, Metacognition, Acceptance and Commitment Therapy, Eye Movement Desensitization and Reprocessing, Randomized Controlled Trial

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[Abstract:1250]

1250 - Behaviors of the mind: seeing the unseen jump out of the frying pan into fire: self-criticism

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Self-criticism is a type of behavior of the mind like rumination and worry. It is known that self-criticism is closely associated with shame (1). Shame includes a negative evaluation of the self (2). Louma suggested that self-criticism is an avoidance behavior to avoid discomfort emotions such as shame (3). When self-criticism exists as a behavioral excess, it causes a narrowing in behavioral repertoire and contributes to psychological inflexibility. Studies have shown that shame and self-criticism contribute significantly to many psychopathological processes such as depression (4), post-traumatic stress disorder (5), eating disorders (6).

ACT (Acceptance and Commitment Therapy) approach; instead of trying to reduce/control compelling inner experiences, it invites a person to make room for them. In addition, if self-criticism is present as a behavioral excess, the ACT approach aims to reduce it and to increase one's self-compassion skills as an alternative behavior.

Keywords: Acceptance and Commitment Therapy, Self-Criticism, Shame

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[Abstract:1252]

1252 - 'Camhs made simple': a booklet breaking down language barriers for young people attending a child and adolescent mental health service in Ireland

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'CAMHS Made Simple' is a booklet that was developed by Speech and Language Therapists (SLTs) based on an assessed need within a Dublin Child and Adolescent Mental Health Service (CAMHS) to provide language accessible information about CAMHS for service users. 81% of children accessing support for emotional and behavioural disorders have language difficulties (Hollo, Wehby & Oliver, 2014) and 45% of young people referred to mental health services have higher order language difficulties (Cohen, Farnia & Im-Bolter, 2013). As such, it is important that young people attending mental health services are provided with language accessible information. 'CAMHS Made Simple' was developed using principles of co-production (Carr, 2016). Collaboration between stakeholders was done throughout the development of 'CAMHS Made Simple'. Young people supported the creation of the booklet by providing images for the booklet and engaging in a focus group to provide insights. SLTs and CAMHS staff from all disciplines contributed to the booklet. Furthermore, feedback cards were distributed to service users, staff and stakeholders to assess to effectiveness of the booklet. 'CAMHS Made Simple' has received positive feedback from a variety of stakeholders. Young people reported that it would make 'less worried to attend CAMHS', approved of the simplicity of its design, 'plain English' use and

believed that the booklet would help other young people attending the service. The booklet has gained wide support from the wider CAMHS community and quality surveyors and is included in all initial appointment letters for the North Dublin services. There is a high incidence of language needs among young people attending child and adolescent mental health services. Providing accessible, written information about the service supports service user understanding and builds trust. Breaking down language barriers has the potential to facilitate both the mental health recovery process and service user experience.

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Keywords: child mental health care, psychoeducation, stigma

[Abstract:1253]

1253 - Psychosis like appearance of dissociative symptoms

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Psychosis, briefly, is an abnormal state of mind that results in impairments in determining what is real and what is not. In addition to delusions and hallucinations, symptoms may include inappropriate, disorganized speech and behavior. There may also be sleep problems, social isolation, lack of motivation, and difficulties carrying out daily activities[1].

Schizophrenia, trauma, some medications, and substances can cause psychotic disorders. In addition, diagnostic confusion may occur between psychotic disorders and other psychiatric disorders. One of these is dissociation, which is actually a defense mechanism of the self, characterized by detachment from reality.

Here, we tried to discuss the connection between dissociation and psychosis from various perspectives.

Dissociative symptoms can mimic psychotic symptoms in many ways. In clinical studies, it has been reported that more than 80% of cases diagnosed with dissociative identity disorder (DID) hear voices. Visual hallucinations are also more common in dissociative disorders than in schizophrenic spectrum disorders. These often have a dramatic character (a bearded old man, a snake, an unidentified creature, etc.)[2].

Patients with a dissociative disorder may exhibit inappropriate behavior during a severe crisis. This can happen because of the transition between different identities, or because the current situation causes the dissociative defenses to break down. This breakdown can be so severe that a psychosis-like state may appear. This state is called "dissociative psychosis". The term dissociative psychosis describes acute dissociative disorders with psychotic features. The acute onset and rapid resolution and the dramatic nature of the hallucinations (often visual and auditory) distinguish such dissociative episodes from psychotic disorders.

Another difference between psychosis and dissociative disorders is reality testing. Reality testing has been defined as an objective evaluation of the outer world, and the ability to discriminate outer world from the inner world. Impaired reality testing is one of the most important features of psychosis. Reality testing is generally intact in patients with dissociative disorder, except for dissociative psychotic episodes, which constitute crisis states superimposed on the ongoing dissociative pathology.

An important component of reality testing is insight. Unlike patients with schizophrenia, patients with dissociative disorders often accept their illness (intact insight). In addition, the dissociative patient's claim that there is another person in him/her or that he/she has more than one identity should not be considered a delusion. Such claims do not arise from a primary thought disorder, but rather from the experience itself (experience of someone else in me that is not me). In contrast, the delusions of people with schizophrenia are the result of a primary thought disorder.

Formal thought disorder is related to disorders in the flow of thought. These symptoms are loosening of associations, blocking in speech, circumstantiality, tangentiality, verbal stereotypes, and neologisms. These are specific signs of a psychotic disorder. There is usually no formal thought disorder in dissociative patients.

In many cases of schizophrenia, delusions develop first and the patient interprets his/her environment in a new way and delusional perception may develop. Such conditions, where delusions directly affect reality assessment, are also not common in dissociative disorders.

From a general psychiatric perspective, brief psychotic disorders are poorly understood. It is a heterogeneous group of psychotic disorders that have long been diagnostic dilemmas for psychiatry. The relationship of these cases with psychotic disorders remains unclear, and further studies are needed to understand the relationship between dissociative symptoms and psychotic symptoms[3].

Keywords: Dissociation, Dissociative Psychosis, Psychosis, Dissociative Disorder

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[Abstract:1254]

1254 - What is the meaning of artificial intelligence?

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Artificial intelligence (AI) is intelligence demonstrated by machines, as opposed to the natural intelligence displayed by animals including humans. It is often described as the work of "intelligent agents" who sense their environment and take actions that maximize their chances of achieving their goals. The applications of AI enclose that advanced web search engines, understanding human speech, recommendation systems, self-driving cars, automated decision-making and competing at the highest level in strategic game systems. Tasks considered to require "intelligence", such as optical character recognition, are often excluded from the scope of a phenomenology known as the AI effect, as it becomes a routine technology (1).

Artificial intelligence was founded as an academic discipline in 1956, and in the years since has experienced several approaches and success. These approaches including simulating the brain, modeling human problem solving, formal logic, large databases of knowledge and imitating animal behavior. The various sub-fields of AI contain reasoning, knowledge representation, planning, learning, natural language processing, perception and the ability to move and manipulate objects. General intelligence is among the field's long-term goals (2). To solve these problems, AI draws upon search and mathematical optimization, formal logic, artificial neural networks, methods based on statistics, probability and economics, computer science, psychology, linguistics, philosophy, and many other fields.

The goals of AI based on simulating (or creating) intelligence include reasoning, problem solving, planning, knowledge representation, learning, perception, natural language processing, motion and manipulation, social intelligence and general intelligence.

Future of AI is related to superintelligence, hyperintelligence, or superhuman intelligence is a hypothetical agent that would possess intelligence far surpassing that of the brightest and most gifted human mind. If research into artificial general intelligence produced sufficiently intelligent software, it might be able to reprogram and improve itself. The improved software would be even better at improving itself, leading to recursive self-improvement. Its intelligence would increase exponentially in an intelligence explosion and could dramatically surpass humans.

There are also some risks like technological unemployment. However subjective estimates of the risk vary widely; for example, Michael Osborne and Carl Benedikt Frey estimate 47% of U.S. jobs are at "high risk" of potential automation, while an OECD report classifies only 9% of U.S. jobs as "high risk" and many middle-class jobs may be eliminated by artificial intelligence. Also the risk is associated with bad actors and weaponized AI, terrorists, criminals and rogue states may use other forms of weaponized AI such as advanced digital warfare and lethal autonomous weapons.

The promise of AI is undeniable; it is possible that the hype and fear. AI tools that recognize images more accurately and consistently than humans can are exciting advances for clinicians. But, the recurring trope of pitting humans vs machine misses the point. Machines are not capable of creativity (3). People minds can generate counterfactuals, imaginative flights, dreams. In contrast to this, a surprise in a machine is a breakdown. Machines do create and surprise in art and music, but taste for this sort of originality is uncertain.

Keywords: Artificial intelligence, machine learning, medicine

[Abstract:1256]

1256 - Behaviors of the mind: seeing the unseen -chasing the future: worry

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Private Practice

The dictionary definition of worry is “to keep thinking about unpleasant things that might happen or about problems that you have”. Worry is a kind of repetitive thinking which is future oriented and described as intrusive, uncontrollable, self-focused and pervasive. Worry has usually been considered within the framework of Generalized Anxiety Disorder (GAD) that is characterized by persistent worry and several theories have been proposed to elucidate mechanisms of it. These theories vary in terms of what is assumed to be the core fear underlying GAD and include the cognitive avoidance model, intolerance of uncertainty model, meta-cognitive model, emotion dysregulation model and acceptance-based model. Although these theories focus on different processes, they share the claim that worry is reinforced through the prevention or suppression of unwanted negative experiences. But recent literature doesn't truly demonstrate that worry enables emotional avoidance instead it creates and maintains negative mood.

In the light of recent literature, a new model called Contrast Avoidance Model has been proposed. It claims that those with GAD see sudden changes in negative emotions as a sign of danger and aim to create and maintain a negative emotion in order to avoid negative emotional contrasts via worry and experience discomfort in long-term positive situations although do not avoid temporary positive situations. Since GAD is often seen as a treatment-resistant disorder in terms of traditional methods aimed at reducing worry, understanding the emotional protective function of worrying behavior in this regard may make an important contribution to treatment. For example, exposure techniques commonly used in clinical practice can be used to expose clients to negative emotional contrast experiences instead of the feared situation or negative emotion.

According to functional contextualistic view, worry is a cognitive behavior which occurs in certain contexts and so has a function like any other physical behaviours. So it seems important to determine which function this behavior has to make effective interventions in psychotherapy. In addition, increasing the ability to experience emotions by increasing psychological flexibility in individuals who avoid intense changes in emotional experience may be a goal in GAD therapy. In this context, psychotherapy can work on increasing the ability of these people to respond flexibly to their inner experiences and to contact the present moment.

At this symposia; firstly the concept of worry will be described, then the distinction between normal and pathological worry will be discussed and the theoretical models of worry will be introduced in detail and finally the functional contextualistic view of worry and its contribution to the treatment will be discussed.

Keywords: Worry, Generalized Anxiety Disorder, Contrast Avoidance Model, Psychotherapy

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[Abstract:1259]

1259 - Brain neuroimaging studies regarding cbt for ocd

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Obsessive-compulsive disorder (OCD) is a common, distressing, and impairing condition characterized by obsessions and/or compulsions. Pathophysiological abnormalities in the prefrontal-basal ganglia-thalamic-prefrontal circuits are believed to underpin OCD. Previous studies showed that OCD patients have significantly smaller volumes of frontal gray and white matter bilaterally including dorsomedial prefrontal cortex, anterior cingulate cortex, inferior frontal gyrus and caudate nucleus as compared to healthy subjects. Treatment related changes have also been suggested in these areas. Cognitive-behavioral therapy (CBT) is a well established treatment for OCD. Brain effects of CBT are incompletely explored. Functional magnetic resonance imaging (fMRI) and positron emission tomography (PET) indicate that CBT attenuates pathophysiological hyperactivity in classical cortico-striato-thalamo-cortical (CSTC) OCD regions, such as caudate, putamen, thalamus, anterior cingulate cortex (ACC) and orbitofrontal cortex (OFC). Several studies have examined changes in brain activity following CBT in patients with OCD. Two studies using PET produced contrasting findings, showing both reduced and increased metabolism in right caudate following CBT. Nabeyama et al. (2008) examined changes in brain activation during a Stroop task in adult OCD patients following 12 weeks of behavioral therapy. They showed increased activation in bilateral cerebellum and reduced activation in right OFC, left medial frontal gyrus, bilateral parahippocampal gyri, left precuneus following treatment. Huyser et al. (2010) used a ToL task to evaluate planning-related brain activation in pediatric OCD patients before and after 16 sessions of protocol-based CBT and demonstrated an association between reduced activation in left DLPFC and parietal cortex following treatment and reduction in OCD symptoms. A follow-up study (Huyser et al. 2011) by the same group in a similar patient population identified increased activation in insula and mPFC during high conflict trials on a flanker task following CBT. Freyer et al. (2011) found increased caudate activity in adult OCD patients during a probabilistic reversal learning task following 8 to 12 weeks of CBT. Morgieva et al. (2014) found decreased ACC and left OFC activation during a personalized exposure task following a 3-month course of CBT. Olanunji et al. (2014) examined pretreatment neuroimaging markers of response to CBT. They found an association between increased activation in anterior temporal pole and amygdala and decreased activation in DLPFC in response to contamination-related images, greater response to a 12-week course of CBT in adult patients with contamination-based OCD. Moody et al. (2017) found that CBT increased functional connectivity in multiple networks within and outside CSTC circuits in OCD. In addition they suggested that increased cerebellar to striatal and prefrontal connectivity may reflect CBT strengthening the ability to resist compulsions and the acquisition of new non-compulsive goal-directed behaviors and thought patterns. CBT for OCD appears to induce neurophysiological changes in both the classical CSTC and non-CSTC pathways.

Keywords: Cognitive Behavioral Therapy, Neuroimaging, Obsessive-Compulsive Disorder

[Abstract:1270]

1270 - What are the psychiatric and behavioral side effects of antiepileptic drugs?

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Psychiatric and behavioral side effects (PBSEs) are highly prevalent in patients taking antiepileptic drugs (AEDs). These adverse effects can lead to suboptimal dosing for seizure control, as well as poor adherence to AEDs and early AED discontinuation in up to 25% of patients. Between 15% and 20% of adult patients with epilepsy taking AEDs experience PBSEs; these include depressive mood, psychosis, increase in irritability, and aggressive behavior. Psychiatric and behavioral side effects are some of the most common adverse effects associated with AED use and have a higher cost per patient per year compared with other adverse-effect categories.

Of particular importance is that psychiatric and behavioral comorbidities result from the social and structural implications of epilepsy, as well as from the AEDs themselves. Thus, individual susceptibility highlights the necessity of understanding patient-related, dose-independent factors that contribute to the onset of PBSEs.

Literature has shown that the presence of psychiatric history is a strong predictor of PBSE with AED use in adult patients with epilepsy. In addition also found that patients with intractable epilepsy (seizures failing to improve with two or more AEDs), secondarily generalized seizures, or

absence seizures are more likely to have PBSE when taking AEDs. History of static encephalopathy was also moderately associated with risk of PBSE. Intractable epilepsy has been linked to significant psychiatric problems that can decrease the patient's quality of life and increase the suicidal risk.

The risk of psychiatric complications with AEDs is likely to be linked to the severity of epilepsy, polytherapy, rapid titration, and high dosages of drugs. Patients with previous psychiatric problems or a familial predisposition seem to be specially prone to behavioral adverse effects. It is important to recognize patients at risk in order to inform them and their families about the possibility of psychiatric adverse effects, to use a careful titration scheme, and to make sure that the patients are seen frequently. When recognized at an early stage, psychiatric complications are mild and reversible in most cases. Risk factors for psychiatric complications are not a strict contraindication for any particular drug and it is not always necessary to withdraw the responsible drug completely. Depending on the pathophysiology and the severity of the syndrome, a dose reduction or a comedication with a neuroleptic or antidepressant drug may be a good compromise. Behavioral side-effect profiles, both negative and positive psychotropic effects, should be considered in the choice of the optimal drug for an individual patient. There is a need for more studies specifically devoted to the psychiatric effects of AEDs in patients with epilepsy. These studies are required to improve the identification of patients at risk of severe behavioral reactions with specific drugs, and also in order to identify patients who have a good chance of benefiting from potentially positive psychotropic effects of AEDs.

Keywords: Antiepileptic, Drugs, Psychiatric, Behavioral, Side Effects

[Abstract:1271]

1271 - Psychology, existence and spirituality

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In the West, with modern times, one's mental activities have been separated, fragmented, and gained autonomous statutes from one another. Whereas in the traditional world, all of these had functioned together depending on what is mythological and religious, or rather within the framework these formed.

Scientific revolutions happened in modern times; philosophical and theoretical knowledge piled up in these times; ideological and political movements thrived and developed in modern ages. Modernity was based on the belief that truth would be reached by fining down knowledge through division of labor, then expanding it as far as possible. While pursuing such knowledge, it forgot the fundamental structure of the universe, life and human (i.e., ontology). It accumulated much knowledge in every field, utilized them in technology and introduced them to life. Modernity believed that thanks to the speed of technology and its ability to imitate people and life, people's enslavement to nature and cultures would end, and that an endless life full of pleasure and worldly happiness would be possible; it also made its contemporaries believe this. In the end, it rendered everything so complicated and entangled that attaining wisdom became impossible.

While all the above was happening in the area of knowledge, the whole process took place before a socioeconomical background of economic disparities called "capitalism", which was strongly criticized due to causing these inequalities as well as alienation and reification. Although its roots are traced back to Ancient Greece by some, philosophical movement named "existentialism" had arisen in the 20th Century as a strong objection to goings-on both in the field of knowledge and social life. It set forth that people could not be treated in a reductionist way or depending on the majority's sovereignty, as modern psychological sciences do, and that people could not be condemned to such an understanding and life, and that humanities could not function with the exact same methods as natural sciences do. Existentialism exerted a strong influence on philosophy, art, theology and sciences pertaining to psychology.

In this speech the following will be discussed: (i) the content and writing process of the author's book with the same name as the heading of this speech, (ii) how we comprehend the culture and mentality that we live in within the context of the relationship between existentialism and spirituality, and (iii) what the extensions of this comprehension could be to psychotherapies. Begin with, how existentialism is often mistaken for Sartre's atheist existentialism will be criticized.

It will be argued that "spirituality" is not exactly the same as "religion" or "religious". Regardless of their religious beliefs, every person has a spirituality just as every person has a personality, because spirituality should be comprehended as a web of meaning that adds purpose and ideal to human life. Efforts will be made for showing that existentialism, contrary to popular belief, attaches a great significance to spirituality. The determinant of spirituality in human psychology and existence will be discussed specifically through Christian existentialists. And further, it will be asserted that theses burgeoned in the Muslim culture can contribute to existentialism.

It will be emphasized that the theme of "hope" is generally ignored by Western existentialism with a few exceptions. On the other hand, it has a place as important as "anxiety" in the Muslim culture, and that the "heart", which is a qualifying concept of human existence in the traditional world, is almost completely forgotten in the West, but remains alive in the Islamic world. The theological and existential dimensions of "separation", a psychological phenomenon that is pointed out by psychoanalysis, which are still alive in the Muslim culture will be examined. The theological-existential origins of the concepts of "envy and gratitude", which form the basis of psychoanalyst Melanie Klein's perspective,

and their connections with virtues in Muslim culture will be opened to discussion. The place and importance of the subject of “worship” in human existence, which even those who understand the importance of spirituality among Western existentialists hardly care about, will be evaluated in terms of fasting and sacrifice.

Keywords: Existence, Christian existentialists, spirituality, existentialist psychotherapy, envy and gratitude

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[Abstract:1272]

1272 - Bridging different approaches to depression new options for treatment resistant depression

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Mood Disorders are a common, chronic, severe, complex and costly group of frequently recurrent psychiatric illness that can be devastating for the affected individual and their families. There is a significant clinical need for more effective and better tolerated drug treatments for these illnesses. Although mania can be a severe clinical state, depression accounts for the predominant burden associated with both unipolar and bipolar disorder. However, both the identification and management of bipolar depression are more challenging, since bipolar depression differs little symptomatically from unipolar depression and responds poorly to traditional antidepressants, which may also induce a switch to mania and/or cause rapid cycling. Current treatment options for both treatment resistant unipolar and bipolar depression are limited and guidelines vary greatly in their recommendations, reflecting gaps and inconsistencies in the current evidence base. Moreover, some recommended options, such as quetiapine, although clearly efficacious, are associated with adverse cardiometabolic side effects, which may be detrimental to the long-term physical health and wellbeing of patients, increasing the likelihood of treatment non-adherence and relapse. More recent evidence for lurasidone and cariprazine suggests that they may effectively manage patients' depressive symptoms. In addition, novel agents targeting alternative neurotransmitter pathways and inflammatory processes (such as ketamine, minocycline and N-acetyl cysteine) are emerging as promising potential options for the treatment of treatment resistant unipolar and bipolar depression in the future. Neurostimulation treatments play a role with ECT at present having the best evidence for efficacy in severe mood states.

Keywords: antidepressant, atypical, antipsychotic, unipolar/bipolar disorder, pharmacotherapy

[Abstract:1273]

1273 - Lithium in the 21st Century

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The monovalent cation lithium is an element in the periodic table which has been used as medicine for the treatment of mood disorders since John Cade's seminal paper in the 1940s.

This lecture will review all aspects of the psychopharmacology of lithium and applications to mood disorders.

Keywords: Lithium, psychopharmacology, mood disorders.

[Abstract:1275]

1275 - Cognitive functions in eating disorders

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Eating disorders, consisting of anorexia nervosa, bulimia nervosa, binge eating disorders are psychiatric disorders with the highest mortality that has adverse effect on physical and mental health in the long term. The lifetime prevalence of all eating disorders is 5% (1).

Executive functions have a strong role in regulating eating behavior. Studies show that some symptoms related to eating disorders and obesity are explained by executive functions and it may be effective in the treatment process (2).

Existence of cognitive deficits in individuals who have eating disorder after symptoms are cured even the duration of disorder is shorter indicates that cognitive deficit may be defined as cause of disorder rather than its consequence (3).

It is observed that there are an impairment of the set shifting, which is component of cognitive flexibility, and of the decision making in anorexia nervosa. In addition, there are more impairments of verbal and visual learning and working memory compared to other eating disorders(2,4,5). These impairments may cause individuals with anorexia nervosa to make difficult to change behavior on strict rules on food consumption, weight control, and exercise routines (5).

The study in individuals with obesity shows that there are significant deficits in problem solving, cognitive flexibility and working memory on individuals with binge eating disorder. It is also stated that the sense of loss of control overeating behavior, associated to executive function deficit may had a role in the development and maintenance of binge eating (6).

Studies in bulimia nervosa indicate that there is the deficit in set shifting like anorexia nervosa. It is also stated that this deficit is related to perfectionism in bulimia nervosa (7).

Understanding the neurocognitive differences between eating and weight disorders can serve as the basis of treatments which target particular disorder especially.

Keywords: Anorexia Nervosa, Binge Eating Disorder, Bulimia Nervosa, Executive Function

[Abstract:1276]

1276 - Exploring carer burden amongst those caring for a child or adolescent with an eating disorder during covid-19Kristen Maunder¹, Fiona McNicholas²

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Background and objective: Carer burden amongst carers of youth with an eating disorder is substantial and if not addressed can lead to negative outcomes for the patient, carer and family. The Coronavirus Disease 2019 (COVID-19) pandemic has made caring for youth with an ED even more onerous and preliminary research is beginning to emerge demonstrating the profound negative impact the pandemic is having upon individuals with EDs and their carers.

Main: In this presentation, we will briefly summarize what is known about carer burden in families where a young person has an ED, consider the additional impact consequent to COVID-19 and highlight the need for interventions aimed at alleviating this. Pre-COVID-19 research identifies high levels of psychological and physical strain amongst those caring for a child with an ED. Themes are beginning to emerge as to why COVID-19 may further exacerbate carer burden: (1) reduced access to ED services; (2) increased physical vulnerability and exacerbation of psychiatric co-morbidity amongst youth with EDs; (3) increased practical demands placed on carers; and (4) social isolation and decreased social support.

Conclusions: The COVID-19 pandemic poses a specific threat to the mental health of youth with EDs and their carers. Given the salient role families play in caring for youth with an ED, attending to carer burden is imperative. Supporting carers through all phases of their child's ED journey by offering adaptive and flexible supportive services which accommodate time constraints, geographic barriers and possible COVID-19 spread is essential.

Keywords: eating disorders, children & adolescents, carers, carer burden, COVID-19

[Abstract:1278]

1278 - Assessment and intervention in real life for adolescents with emerging mental health problems

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Within psychiatry, there is a need for more personalized and person-centered care. Whereas the focus has largely been on the search for biomarkers to advance the field, I will focus on the use of digital technology to further personalized care in psychiatry. I will discuss how using a structured diary applet could help in developing a much more fine-grained understanding of how psychopathology emerges in the realm of ordinary life, often in interaction with contextual factors. This digital mobile health tool makes patients active partners in the clinical process as they will have to actively collect their own data. This will not only increase empowerment and self-management, it also will allow to provide more detailed evaluations of both medical and psychological interventions, it will point towards individualized treatment goals as well as provide a tool for shared decision making.

In addition, I will discuss the possibility of digital mobile health tools for blended care, where standard clinical therapeutic interventions are extended outside the therapy room into the daily life of people. I will give some examples of such Ecological Momentary Interventions, where digital tools are used to offer psychological intervention in daily life, with a specific focus on young people.

Keywords: psychotherapy, experience sampling methodology, ecological momentary interventions, psychosis

[Abstract:1279]

1279 - Characteristics of gender dysphoria in youth with autism spectrum disorder

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Gender dysphoria (GD) is defined as an apparent incongruence between assigned sex and experienced gender. And according to DSM-V, Autistic spectrum disorders (ASD) are a group of neurodevelopmental disorders characterized by socio-communicative impairments, repetitive behavior, and specific interests. Although, the current literature about GD and ASD co-occurrence is relatively scarce to our knowledge, it is claimed that the relationship between autism spectrum disorders and gender dysphoria is a reciprocal one. Although neurodevelopmental disorders are more common among individuals with CD, problems with gender identity are also described in young people diagnosed with ASD. This situation is explained by several theories. First, individuals with autism may conform less to social norms than individuals not on the autism spectrum; this may partly explain why more individuals with autism are outside the classical gender dichotomy. Second, the effects of prenatal mechanisms such as sex hormones on brain development have been shown to contribute to both autism and gender identity behavior. Finally, individuals with CD can be socially withdrawn as a result of experiencing stressful life events such as exclusion from social environments, discrimination, exposure to bullying and abuse.

In cases where the two conditions are clinically seen together, it may be difficult to evaluate and diagnose CD due to ASD symptoms. A guide has recently been published for individuals with these two conditions together. According to this guideline, a management protocol is created by taking into account risk assessments and safety-related problems, as a result of the diagnostic processes that will take more time for both areas.

Keywords: Autism Spectrum Disorders, Gender Dysphoria, Social skills

[Abstract:1280]

1280 - Bodywhys, the eating disorders association of Ireland providing support during covid-19

Harriet Parsons

Bodywhys. The Eating Disorders Association of Ireland.

In March 2020, Irish society went into lockdown due to the COVID-19 pandemic, and barring a few weeks, remained in lockdown up until June 2021. Restrictions are only now being lifted. The pandemic and lockdown caused huge challenges for people with eating disorders in Ireland, in line with research findings this was, in the main, experienced across three key areas – the experience of those with an eating disorder, the experience of service provision, and the impact on the family situation. Bodywhys, The Eating Disorders Association of Ireland took all support services online to provide support to people affected by eating disorders in Ireland throughout the pandemic. This presentation will detail and capture the experiences of people with lived experience and their families as they met the challenges produced by the covid pandemic. Looking at the transfer of some support services online, and the continuity of pre-existing online services, this presentation will detail how the demand for support increased and how Bodywhys met this challenge.

Keywords: Eating Disorders, support service, online support, family support, covid, lockdown

[Abstract:1282]

1282 - Comparative efficacy of anxiolytic drugs and evidence based psychotherapies for adult anxiety disorders

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In the treatment of anxiety disorders, which are the most common mental disorders, both drug treatments and psychotherapy are used. There are clinical studies showing that psychological treatments are as good as, and sometimes even superior to, anti-anxiety drug treatments for many anxiety disorders, especially panic disorder, social anxiety disorder, and specific phobias. The main psychotherapies that have been used in clinical studies to date in the treatment of anxiety disorders are cognitive behavioral therapy, psychodynamic therapy, and interpersonal therapy.

The treatments with the highest level of evidence are those found to be effective in meta-analyses or reviews of randomized controlled trials. Among these therapies, cognitive behavioral therapy (CBT) is the most widely used therapy for anxiety disorders. Cognitive behavioral therapy is a type of psychotherapy based on the treatment of an individual's mental problems using the principles of cognitive psychology and learning theories. According to meta-analytical studies or reviews of randomized controlled trials, CBT has been found to be effective in the treatment of panic disorder, specific phobias, social anxiety disorder, and generalized anxiety disorder.

In addition to standard cognitive therapy, new cognitive behavioral therapy methods, which consist of new techniques and applications, such as acceptance and commitment therapy, metacognitive therapy, mindfulness-based cognitive therapy, mindfulness-based stress reduction, have also been found to be effective in anxiety disorders. On the other hand psychodynamic therapy, and psychoeducation are also found to be effective in panic disorder (1).

In studies conducted with both adults and children and adolescents, panic disorder, social anxiety disorder, both SSRIs and SNRIs and CBT were found to be effective in specific phobias and generalized anxiety disorder (2, 3). The number of studies directly comparing both treatments with each other is few, and while the efficacy level in acute treatment is close to each other, CBT seems to be more effective than the drugs in preventing recurrences.

Studies comparing the combined use of drugs and therapy with drugs alone or therapy alone are very few. In one of these studies, data were obtained that combined therapy may increase relapses in the long-term in panic disorder. In specific phobia and agoraphobia, which are among the anxiety disorders, cognitive behavioral therapies are more effective than drug treatments (4).

In cases where both drugs and cognitive behavioral therapy are effective, such as panic disorder, generalized anxiety disorder, and social phobia, it would be appropriate to determine which one should be chosen according to the clinical characteristics and personal preferences of the patients.

Keywords: anxiety disorder, cognitive behavioral therapy, pharmacotherapy

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[Abstract:1283]

1283 - The role of dietitian in the simple model of care

Maria Keenehan

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Eating disorders (ED's) have the highest mortality and morbidity within mental health and they pose significant health, social and economic cost to patients, their families and to society. Access to Multi-Disciplinary Team treatment is known to improve outcomes for young people and reduce long-term healthcare costs. The HSE has prioritised the provision of high quality, accessible and value for money ED services and a Model of Care was developed to guide the delivery of those aims (Eating Disorder Services, HSE Model of Care for Ireland, 2018). The SIMPLE Model of Care was developed by a group of clinicians from Lucena community Child and Adolescent Mental Health Service (CAMHS) and based on international best practice and experience to provide interdisciplinary specialist review of the nutritional, medical, and psychiatric issues. This holistic approach facilitates the delivery of the gold standard family based treatment (FBT) in the outpatient (OPD) setting, and aims to reduce the need for hospitalisation.

HSE national clinical programme for eating disorders include Paediatricians and Dietitians as part of the FBT team yet this is not current practice in Ireland.

Treatment centres across UK and America are making full use of Dietitians with their evidenced based practice (EBP) by adapting FBT to treat eating disorders. Dietitians experienced in eating disorder treatment can bring value to FBT by leading the refeeding process and sharing nutritional knowledge in conjunctions with the FBT therapists.

Aggressive nutritional rehabilitation in adolescence with EDs are associated with superior prognosis. The introduction of a dietitian to a team can help to facilitate the introduction of energy dense foods, food variety (all food groups) and the re-introduction of fear foods as everyday meals for young people. Such Dietitians are trained in behavioural change techniques including motivational interviewing and this can assist with taking a whole family approach to facilitate change.

Another benefit of a Dietitian being on a MDT includes being a source of nutritional education for children, adolescents and their families by virtue of being specifically trained to provide complex scientific information in its most understandable form to connect food sources to bodily functioning including growth and development in the minds of young people. A good Dietitian is skilled in assessing and treating malnutrition and can act as a resource for team members and families alike.

Collaborative working within the SIMPLE team improves the skills, understanding and knowledge of all participants and is a great resource to inform future practice in Ireland.

The use of multidisciplinary teams can help speed up recovery and reduce hospital admissions thus improving outcomes for this cohort as illustrated in SIMPLE.

Keywords: adolescence, eating disorders, Dietitian, SIMPLE, multidisciplinary

[Abstract:1284]

1284 - Psychopharmacological treatment of Psychogenic Non-Epileptic Seizures

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Psychogenic Nonepileptic Seizures (PNES) continue to pose significant challenges in the fields of neurology and psychiatry. A multidisciplinary approach is required not only because of the challenges in diagnosis, but also due to problems in psychopharmacological management. The accurate diagnosis of PNES requires an average of 7.2 years from the onset of symptoms. This prolonged treatment is linked to pharmacologically suboptimal medication combinations, significant side effects, and higher medical costs. Furthermore, since approximately 70% of patients have at least two co-occurring psychiatric conditions, proper and timely pharmaceutical treatment of PNES becomes especially critical. Treatment also needs to be tailored to the patient depending on many intrinsic and extrinsic factors including, but not limited to, underlying etiology, patient's intellectual ability, family dynamics, concomitant psychiatric disorders and sociocultural background. Drug therapy has always been either preventative or symptomatic. Serotonergic agents such as selective serotonin reuptake inhibitors (SSRIs) are first-line medications because serotonin system dysregulation is an underlying factor in a significant part of accompanying psychiatric conditions such as mood disorders, anxiety disorders, somatic symptom disorders, post-traumatic stress disorders, and impulsivity-related disorders. There is yet no double-blind, randomized, placebo-controlled studies on the effectiveness of psychotropic medications in PNES. Current medical literature is limited to several prospective open-label studies, a pilot placebo-controlled randomized trial of sertraline, and various case reports. Another antidepressant, venlafaxine, as well as dopamine receptor antagonists haloperidol and sulpiride, have also been investigated in management of PNES. As demonstrated by extensive reports, antiepileptic drugs are ineffective in treatment. In cases with no compelling evidence for epilepsy, antiepileptics are advised to be discontinued in an epilepsy center. On the other hand, it is preferable to avoid high-dose and multiple antiepileptic drug regimens in PNES patients with epilepsy comorbidity. There are yet no established dose recommendations for psychotropic agents in the treatment of PNES. Psychopharmacotherapy, in addition to well-established psychotherapy techniques, can be utilized as an adjunct in PNES management. Among agents with therapeutic potential are NMDA receptor antagonists, glucocorticoid antagonists, beta adrenergic blockers and analgesics.

Keywords: Nonepileptic Seizures, psychopharmacology, Selective Serotonin Reuptake Inhibitors

[Abstract:1285]

1285 - Education and employment experiences of youth with autism spectrum disorders

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There has been a remarkable frameshift in the studies regarding Autism Spectrum Disorder (ASD) in the recent years. Fundamental knowledge accumulated about ASD to date has focused on infancy, childhood, or adolescence characteristics of these disorders. This situation can be considered as a natural result of the policies to show the positive effects of early diagnosis and intervention programs on the long-term results of ASD and to raise awareness in this area. At the present time, a growing interest in adults with ASD is apparent. One is the most important reason for this change that limited knowledge about most effective interventions in adulthood while the population of adults with ASD has risen day by day ¹. A number of factors have an impact on the difficulties faced by individuals with ASD in adulthood. Most of adults with ASD, even those with the high-functioning intellectual abilities, have difficulty dealing independently with challenges such as housing, employment, higher education, friendships, sexuality, marriage and other experiences and demands related to adult life. The support needs of individuals with ASD change over time, depending on the context of the current situation (at home, school, and work). Educational life includes relatively more flexible hours, responsibilities to others are low. The transition to commuting and responsibilities to others who come to work adds a new and

complicating dimension to life. On the other hand, additional expectations such as maintaining social and close relationships create a cumulative effect. From this point of view transition to adulthood is a particularly vulnerable period for individuals with ASD who have ongoing problems with social skill deficiencies, behavioral difficulties, executive function problems, and comorbid psychiatric disorders, and who generally do not have adequate preparation for these problems. However, in Turkey as in the world, individuals with ASD receive support services they need through a school-based system. With the end of high school, selection, accessibility and continuity of suitable services for those are major challenges, and therefore, the end of high school is a period of "detachment point" from social life for individuals with ASD. More than a third of young adults with ASD have never been able to find a job or continue education after high school. It has been shown that improvement in ASD symptoms slows down and even regress during this period, since adequate intellectual stimulation can not be provided.^{2,3} Therefore, it is important for parents, educators, clinicians and all stakeholders to recognize the challenges of ASD that go beyond being "childhood disorders" into adulthood, and to develop appropriate interventions, and effective services for this population. This presentation discusses youths with ASD and their unique ongoing difficulties they face during the stage of emerging adulthood, with the expanded literature about adults with ASD. Additionally, it is discussed in more detail some clusters of potential problems that may arise in both university and employment, based on the distinctive characteristics of individuals with ASD.

Keywords: Adulthood, autism, education, employment, youth.

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[Abstract:1286]

1286 - The national clinical programme for adults with adhd in Ireland: model of care with early implementation update

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ADHD has been long recognised as a common mental disorder in children and it is now known to persist into adulthood (Kooij 2010). Two-thirds of the approximately 5% of children with ADHD continue to have symptoms into adulthood with 1.5% of the adult population having the full syndrome. The latter consists of the persistence of 2 of the 3 core symptoms together with functional impairments.

Despite this, there are no fully established ADHD services for adults with syndromal ADHD in Ireland even though there is Irish research confirming its existence (Adamis 2017). As well as functional impairments in personal and social relations, education and occupation, managing money and organising life in general, there is an increased risk of co-morbid mental health problems, road traffic accidents and criminal conviction. Suicide and self-harm also occur at increased rates.

In response to this service deficit for the major public health and social problems associated with unrecognised and untreated ADHD in adults, the Irish Health Service Executive established a National Clinical Programme to design and implement an evidence-based, practical and integrated model of care (HSE Adult ADHD NCP 2021).

The Programme recommends a combined secondary/tertiary approach based on close collaboration with adult and child mental health services. Key features include a clear referral process with a modified pathway for young people with ADHD transitioning from child mental health services. Comprehensive and skilled assessment for which the DIVA is recommended (Kooij 2019) followed by ADHD-specific multi-modal interventions are also key features. This is to be delivered by a national network of Adult ADHD Clinics each of which is multidisciplinary and led by a consultant psychiatrist. The location of the Clinics is determined by both the adult population and geographical factors.

The NCP has now been designed and formally approved and is in early implementation. This is overseen by the NCP's Clinical Lead supported by the Programme Manager. Training of the new Clinic teams and activity data collation is part of this brief as is advocating for additional government funding to establish the full national network of Adult ADHD Clinics.

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Keywords: ADHD, Adults, Ireland, model of care.

[Abstract:1287]

1287 - Food addiction and substance abuse

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Addiction is a chronic brain disease that causes problems in social, economic and many other areas. The addicted person often has difficulty adjusting the amount of substance or object they use. Loss of control often occurs. The substance craving is almost always evident. Tolerance develops over time to the substance used, and withdrawal symptoms occur when the substance intake is reduced or terminated. While the concepts of substance abuse and substance addiction are used in DSM IV TR, the title of substance use disorders is included in DSM V instead of these two concepts. It has been suggested that similar processes in substance addiction occur in food addiction, especially with excessive consumption of processed foods with high sugar, salt and fat content (1). In some studies, many neurobiological changes that occur in addiction have also been shown in obesity patients, and similar features have been found in the reward system in obesity and substance addiction (2). In most of the studies, Yale Food Addiction Scale was used to determine food addiction. This scale was developed by Gearhardt et al. according to DSM-IV addiction diagnostic criteria, and was updated as Yale Food Addiction Scale 2 with the changes in the addiction field in DSM V (3). Food addiction is still a controversial issue. While some researchers thought that food addiction should be evaluated within eating disorders, many reported that it should be considered within addictions. It is thought that food addiction has similar characteristics with substance use disorders in terms of risk factors, personality traits and clinical symptoms (4). Food addiction as a term is another controversial issue. Is it a behavioral type of addiction, or should we call food a substance and consider it in the substance addiction subgroup? There are studies reporting that emotional eating, depression, and post-traumatic stress disorder symptoms are similar in food addiction and substance use disorders (5). In a study conducted in adolescents, food addiction symptoms were found to be positively associated with cannabis alcohol nicotine and sugar intake (6). In addition, food addiction was found to be high in groups with behavioral addiction. In a study conducted on patients receiving addiction treatment, the prevalence of food addiction was found to be 20.17%. In the same study, food addiction was found to be higher in multiple substance users (7). In studies using the Yale Food Addiction Scale in obese patients, food addiction was found at high rates. Medical treatments, psychosocial treatments and surgical interventions can be used in the treatment of obesity. Bariatric surgery is the surgical treatment of obesity. There are publications stating that 17-54% of bariatric surgery candidates have food addiction (8). Also weight loss and tendency to other addictions can be seen after bariatric surgery. In addition some studies reporting that alcohol use and the amount of alcohol used increase in the post-surgical period (9).

Keywords: addiction, food addiction, substance use disorder

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[Abstract:1288]

1288 - Understanding and managing adult adhd programme (umaap): psycho-education and self-help workshops for adults with adhd

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Psycho-educational groups for adults with attention-deficit/hyperactivity disorder (ADHD) have demonstrated strong efficacy in increasing knowledge of ADHD, psychological well-being and self-esteem [1,2]. In parallel with the Irish Health Service Executive’s (HSE) National Clinical Programme for ADHD in Adults, the Understanding and Managing Adult ADHD Programme (UMAAP) was developed for adults recently diagnosed with ADHD, have a self-diagnosis of ADHD or have subclinical symptoms that do not meet the full diagnostic criteria. UMAAP has two OBJECTIVES: provide information and education to increase understanding of ADHD and techniques for self-management and to increase psychological flexibility to improve self-esteem and quality of life. To do so, UMAAP incorporates Acceptance and Commitment Therapy (ACT) principles into psychoeducation. Cognitive behavioural therapy has been widely established as effective for ADHD [3]. However, UMAAP will offer a novel approach by implementing ACT for adults with ADHD. UMAAP’s content is derived from the findings of a Delphi consensus study with experts by experience to ensure the topics best meet the educational needs of adults with ADHD. The programme involves five sessions, delivered online weekly and conducted as a webinar to increase accessibility. The five sessions explore what ADHD is, inattention and impulsivity, daily life, emotions, mood, accepting and thriving. UMAAP will be launched in early 2022. The acceptability, feasibility and effectiveness of the programme will be evaluated. Knowledge of ADHD, self-esteem and quality of life will be used to indicate effectiveness. Once evaluated, UMAAP will be available to clinicians to implement in their services and will be facilitated regularly by ADHD-Ireland, Ireland’s national ADHD charity.

Keywords: Adult ADHD, Psychoeducation, Self help

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[Abstract:1289]

1289 - Development of a psycho-education and self-help app for adults with adhd in Ireland

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High quality psychoeducation for adults with attention-deficit/hyperactivity disorder (ADHD) is crucial as adults will seek out information about ADHD soon after their diagnosis [1]. Smart phone apps are a potentially useful medium for providing psychoeducation [2] and early studies suggest some efficacy of mobile-based psychoeducation in reducing ADHD symptoms [3]. In 2022, the Health Service Executive’s (HSE) National Clinical Programme for ADHD in Adults will launch a psycho-education and self-help app. Mobile apps often have high rates of attrition [4]. To

address this, the present study aimed to include perspectives of service-users in the development of the app by using a Delphi consensus design. The study investigated what the psychoeducational needs of adults with ADHD are and what app adaptations they would like. An expert panel consisting of 43 adults with ADHD was recruited. Panel members were asked to rate the importance of the proposed topics and provide additional suggestions. Suggested topics and topics that did not achieve consensus were included for ranking in the second and final round. Interquartile ratings were used to determine consensus. A high consensus was achieved in both rounds, with consensus on 94% of topics in the first round and 98% in the second round. Most topics were rated as important or essential. Essential topics reflected participants' desire to deeply understand their ADHD, how ADHD is diagnosed, all intervention options and how to live with ADHD. These findings were used to develop the psychoeducational content of the HSE app, which will be qualitatively and quantitatively evaluated, in line with recommendations for research on digital health interventions. The findings can also be applied by clinicians when conducting post-diagnosis discussions or when developing psychosocial interventions for adult ADHD.

Keywords: Adult ADHD, self-help, psychoeducation

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[Abstract:1290]

1290 - Ketamine for in-patient depression

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The standard pharmacological care for depression has remained focused on monoamine neurotransmitters, e.g. selective serotonin re-uptake inhibitors (SSRI), serotonin-norepinephrine reuptake inhibitors, tricyclic antidepressants. Unfortunately, only 30% of patients achieve remission after first-line SSRI treatment and half of patients do not remit after two antidepressant trials. Moreover, such drugs can take weeks to work, highlighting the need for novel treatments. One such approach might be ketamine.

Ketamine is a routinely used dissociative anaesthetic. It is usually given intravenously (i.v.) with a half-life of 2-3 hours. An antagonist of the N-methyl-D-aspartate receptor (NMDAR), it targets the excitatory neurotransmitter glutamate. Ketamine is a racemic mixture of R- and S-ketamine (esketamine). An intranasal formulation of esketamine has been developed for treatment-resistant depression and was approved by the FDA in 2019. This is currently under review by regulatory authorities in Europe.

Single, slowly administered, sub-anaesthetic ketamine infusions elicit rapid, though transient, antidepressant responses, including reducing suicidal ideation. A 40-minute 0.5mg/kg infusion has been the most effective dose, with lower doses having less of a therapeutic effect and higher doses causing intolerable dissociative side-effects. Depressive symptoms improve within one-hour of single infusions, with peak effect-size at 24-hours and lasting up to 5-8 days. Other methods to administer ketamine are being evaluated, including intramuscular and subcutaneous injections, oral ingestion, and intranasal sprays. Use of serial ketamine infusions, to maintain benefit, is being assessed in clinical trials (e.g. ClinicalTrials.gov NCT04939649).

Ketamine represents a paradigm shift away from slow-acting monoaminergic antidepressants to a possible new era of rapid-acting antidepressants. However, a definitive role for ketamine in managing depression is not yet agreed and, because of its abuse potential and

limited data on long-term safety when used to treat depression, there are concerns about unregulated off-label use and associated lack of oversight.

Keywords: Ketamine, depression, dissociation, clinical trial

[Abstract:1291]

1291 - Childhood onset exercise addiction or atypical anorexia nervosa during covid-19: case report

Fiona McNicholas

Covid-19 pandemic has brought about many changes for children and families across the world. In an effort to contain the spread and impact of the virus, countries have responded by unprecedented restrictions on our personal and societal liberties. For children, this has involved closure of schools, shifting to online learning, and restrictions of social and sporting activities. Whilst these measures have generally been considered necessary, they may have had unintended consequences. This presentation reviews the impact Covid-19 has had on our eating and exercise habits, reflecting both adaptive and maladaptive coping strategies. A case of exercise addiction presenting in a young boy will highlight these issues and the need for clinicians to continue to have an open mind with regard to possible diagnoses and treatment options. The collateral damage of Covid-19 mandated restrictions, aimed at containing the spread of the virus, are evident in this case. Clinicians need to be alert to potentially maladaptive coping strategies and unusual or altered pathways of presentation, especially in younger children during these challenging times.

Keywords: Childhood-onset, Anorexia Nervosa, AN, Exercise Addiction, Covid-19.

[Abstract:1292]

1292- Considerations of simple in Turkey

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Eating disorders have been shown to have a negative impact on a young person's mental and physical health. They can also be really distressing to those who care for them. The treatment of choice has been demonstrated to be Family Based Treatment or Cognitive Behavioral Therapy. If administered early on, it has the potential to produce positive results. Other characteristics, such as the existence of co-morbid anxiety or depression, inflexible thinking processes, or family suffering, may influence therapy success. Adjunctive or alternative therapy may be beneficial in certain cases. Medical implications of malnutrition can have long-term negative effects on medical, cognitive, and mental health outcomes. Better outcomes have been linked to early detection and management.

A new specialist assessment service model for young people with an eating disorder was set up in Ireland. This model is called SIMPLE: A Systematic Inclusive Medical and Psychiatric evaluation of Eating disorders. SIMPLE's goal is to provide a comprehensive evaluation to youth with eating disorders and to track their progress.

An initial examination by a child psychiatrist is provided, as well as consultation with an adolescent medicine physician and a dietician with experience in the assessment and medical management of EDs. This consultation takes place in a hospital setting to allow for clinically relevant physical examinations, blood tests, and ECGs. A very similar method to SIMPLE is applied in Ankara City Hospital in Turkey. This session will focus on the method used in Ankara City Hospital and the applicability of SIMPLE in Turkey.

Keywords: SIMPLE, Medical, Psychiatric, Evaluation, Eating disorders

[Abstract:1293]

1293 - Food addiction and impulsivity

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The concept of "food addiction", which has been mentioned frequently in recent years, first entered the scientific literature with Theron Randolph in 1956 and defined it as a special adaptation to one or more foods that the individual regularly consumes and is hypersensitive to, which presents symptoms similar to other addiction processes (1). In recent years, the increase in the prevalence of nutrition-related health problems, especially obesity, has increased the interest in food addiction. Food addiction has been defined as the intense and abnormal consumption of certain high-calorie and glucose-rich "extremely delicious" foods. It is claimed that some foods containing high levels of fat, sugar and salt affect the central nervous system and these foods cause behavioral adaptations similar to addictive substances (2). Some studies have reported that individuals with food addiction have difficulty in controlling their eating behavior. Many studies have been conducted to determine the rates of food addiction in our society. According to the findings of a recent study in Turkish society, the rate of food addiction among university students was determined as 11.4% (3). In another study conducted in the Turkish population, the rate of food addiction in adults was reported as 11% (4.) Inability to control the behavior despite the negative consequences of some behaviors and taking action before the information processing regarding internal or external stimuli is completed is defined as impulsivity (5) Many studies have shown that there is a relationship between addiction and impulsivity. Especially in substance addicts, it has been shown that the decision-making mechanism and impulse inhibition on substance use are impaired. It has been reported that especially compulsive substance use is high in more impulsive individuals (6). It is stated that impulsivity is important in the etiopathogenesis of obesity and that the disorder in the reward system results in eating impulsively in these individuals (7). Recently, individuals at risk for food addiction have started to be defined with self-assessment scales developed according to substance addiction diagnostic criteria (8). One of the important reasons why food addiction is defined according to the substance addiction diagnostic criteria is that some foods have an effect on the central nervous system, just like psychoactive substances. It has been shown that some foods such as chocolate increase the release of dopamine in the mesolimbic pathway (reward pathway) in the central nervous system. These may cause us to think, at first glance, that the food we eat in Eating Addiction is the same as the substance in substance addiction. In a study conducted by Atilla Tekin et al. to investigate the relationship between food addiction and impulsivity in young adults, it was found that a significant proportion of young adults have food addiction, and motor impulsivity and impulsivity total scores were higher in individuals with food addiction (9). In another study, Meule et al. reported that attention-related impulsivity and motor impulsivity predicted food addiction together in obese individuals (10). These studies show us that there may be a strong relationship between food addiction and impulsivity. In other words, the main problem lies in the inability to control the eating behavior rather than the relationship with the substance ingested in substance addiction.

Keywords: Addiction, Food Addiction, Impulsivity**References**

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[Abstract:1294]

1294 - Empathy with cognitive aspects

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Empathy is an essential component of any form of psychotherapy. In CBT, showing empathy to the patient is one of the first steps of the treatment process. In a good CBT process, empathy is a necessary element of the therapy process, although it is often not sufficient(1). Through empathy, the therapist seeks to develop a deeper understanding of the client's unique experiences in particular situations. To do this, it depends on the therapist's ability to put himself in the patient's shoes, reflect on the patient's thought processes and emotions, recognize and accept the patient's strengths and weaknesses, and share the impact of these characteristics on them appropriately with the patient. Empathy is a process where two people meet on the same level. Empathy, driven by open communication and a genuine desire to connect, is an experience that helps develop a therapeutic alliance.

Because cognitive behavioral therapy aims to relieve the patient's emotional distress by changing the inappropriate beliefs of the patient, which is based on the patient's discovery of the therapist's alternative and different perspective, rather than empathy about the patient's situation. Although empathy is a necessary attitude in cognitive behavioral therapy, it is controversial what the level of this empathy should be. According to the cognitive behavioral theory, since the patient's point of view is one of the factors that cause the problem experienced by the individual, the therapist tries to change the patient's point of view while understanding it. While Rogers et al. put forward the warm and empathetic relationship as a sufficient and necessary condition for personality change, Beck and Ellis who are the co-founders of the cognitive behavioral therapy, stated that a good therapeutic relationship is necessary but not sufficient. A good relationship creates the ground on which the cognitive behavioral techniques will sit. In an analogy from general medicine, empathy and good relationship are the patient's understanding and getting treatment; but it is also extremely important which drug will be given to the patient who accepts the treatment and extends his arm or hand. Although the concept of objectivity is not discussed so intensely, it stands out as one of the main characteristics of the therapist, especially in cognitive therapies. As the definitions of these two attitudes show, they involve two essentially contradictory situations, both being as close to the client as himself and staying away from him.

According to the cognitive behavioral model of empathy, empathy involves a specific mode of information processing in which therapists can observe and reflect on their own emotional responses to understand the client, and it has both emotional and cognitive aspects. Key components of therapeutic empathy consists of 4 dimensions which are empathic attitude/stance, empathic attunement, empathic communication skills, empathy knowledge (2).

The empathic stance encompasses a sense of benevolence, curiosity, and concern that permeates all other aspects of empathic skill (agreement, communication skills).

Keywords: therapeutic empathy, cognitive behaviour therapy, psychotherapy

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[Abstract:1295]

1295 - Could antidepressant drugs be a new hope in cancer treatment?

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Cancer is the clonal spread of cells with impaired growth characteristics and is the most common and also the most complicated of somatic genetic diseases. Studies have shown that the diagnosis of cancer causes more depression than other diseases, and depression is a concomitant disease that affects more than 10% of cancer patients (1). It has also been shown that depression causes a decrease in the quality of life and an increase in the death rate in cancer patients. It is thought that depression in cancer patients is approximately 3 times higher than in the non-cancer population. If major depression is diagnosed in patients receiving outpatient treatment in oncology units; treatment with antidepressants

along with chemotherapy is also widely applied. It is increasingly recognized that antidepressant drugs may exert other effects in addition to their well-documented ability to modulate neurotransmission. In addition to their effects on monoaminergic systems and receptors, a number of studies suggest that at least some antidepressants may have other common properties, including immunomodulatory, cyto/neuroprotective, analgesic, and anti-inflammatory activities (2). Although it varies depending on the types, it triggers cell death in cancer cells with different mechanisms. The most common death mechanisms are apoptosis and autophagy. Antidepressants control tumor growth by two mechanisms. First, antidepressants trigger apoptosis in cancer cells and inhibit cell proliferation. Second, antidepressants control antitumor immunity by increasing cytotoxic activity against cancer cells and modulating the production of TH1 and TH2 cytokines. Modern immunotherapeutic approaches are designed to exploit the activities of effector T cells and suppress regulatory T cells to eradicate cancer. In patients with major depressive disorder, blood levels of proinflammatory cytokines and monocyte chemoattractant protein-1 are relatively higher, and anti-inflammatory cytokines such as IL-4 and TGF- β are relatively lower. Reversal of this condition following treatment with antidepressants such as SSRIs suggests that serotonin plays a role in the modulation of cytokine secretion. When antidepressants are used together with chemotherapeutic agents, they also create a synergistic effect as a result of drug interactions. In addition, they increase the sensitivity to chemotherapeutic agents in cancer cells with multi-drug resistance and help to break the resistance. Animal models are used to study the effects of antidepressants on tumor progression. The results show us that antidepressants exert a primarily inhibitory effect on tumor growth also in animal models, consistent with findings from epidemiological studies. Looking at the direct effects of antidepressants on cultured tumor cells, the evidence strongly suggests that antidepressants have a direct inhibitory effect on tumor cells (3). In addition to their cytotoxic and synergistic effects, this chemosensitive feature of antidepressants in resistant cancer cells gives hope that the success of treatment can be increased by using these drugs together in cancer treatments.

Keywords: Cancer, antidepressants, depression

[Abstract:1296]

1296 - Identification and clinical features of hoarding disorder

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Hoarding disorder is characterized by excessively saving items that others may view as worthless, having difficulty or indecision in throwing items. In other words, people diagnosed hoarding disorder have extreme anxiety of losing items that they believe may be useful to them in a later period of time. Saving and difficulty discarding appear to be associated to subjective beliefs about the instrumental, sentimental or intrinsic value of objects (1).

The disorder seems to be mostly related to the adult age group however, it is reported that most of the patients had first signs of hoarding symptoms in childhood and adolescence and showed a chronic process (2). In an epidemiological study, it was reported that hoarding behavior that causes distress in adolescents is 2% (3). In another study, it was suggested that 41-48 % of children diagnosed with OCD had symptoms of hoarding (4). In a study conducted in our country, the prevalence of hoarding disorder was found to be 0,98% (5).

The main clinical feature of this disorder is difficulty in leaving items or throwing items. The most frequently hoarded items are clothes, bags, toys, pens, erasers and pieces of paper. The items are usually hoarded regardless of their value (6). Individuals diagnosed hoarding disorder may react excessively if items are thrown or lost due to anxiety. For most patients, their items are way to relax and feel safe as a result of attachment (7).

Keywords: Hoarding, OCD, Clinical Features

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Psychotherapies for the treatment of psychogenic non-epileptic seizures

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Psychogenic Non-Epileptic Seizures (PNES) are episodes of movement, sensation, or behavior that present as somatic manifestations of psychological distress that clinically resemble epileptic seizures but do not have a neurological origin. PNES is a neurobehavioral disorder with a high potential for clinicians to experience difficulties in both diagnosis and treatment. It can be said that there is a great deal of uncertainty about the management of PNES and, unfortunately, there is still not enough robust evidence to support any specific treatment.¹ To enable patients to participate actively in the treatment process, the first psychotherapeutic strategy after confirming the diagnosis of PNES is to inform the patient and family of the non-epileptic origin of seizures through a psychoeducational intervention.² The clinicians need to keep in mind that a negative diagnostic experience can lead to frustration and a person to reject further treatment attempts. The diagnosis should be communicated to the patient with a careful, empathetic and positive approach.

Although no randomized controlled studies have been conducted on the treatment of PNES, evidence from recent studies suggests that psychotherapeutic approaches may be the most effective way to manage PNES.³ The results of the uncontrolled studies indicate that psychological interventions for PNES may yield greater rates of seizure reduction and seizure freedom compared to those who do not receive psychotherapy.¹ Cognitive-behavioral therapies (CBT) in the management of PNES currently stand out as the interventions that exhibit the most robust experimental and clinical evidence of efficacy.⁴ CBT can offer very important strategies to identify the links between stress and PNES, to develop more adaptive coping styles and challenge the patient's basic assumptions about psychogenic seizures. It also aims to suggest a way that is not dependent on symptoms, focusing on living with symptoms rather than investigating and treating symptoms. Intensive psychodynamic psychotherapy can be used as another psychotherapeutic modality to help identify and express threatening situations or emotions such as conflict, anger, feelings of rejection, and to set realistic goals for relationships. Psychodynamic therapy can be considered as individual or group therapy. Family therapy can be an important aspect of treatment when the family system supports the maintenance of the PNES. In addition, psycho-educational approaches, supportive psychotherapy and lifestyle changes can make important contributions to psychotherapeutic interventions. Despite all these psychotherapeutic treatment methods, unfortunately, it is reported that patients with PNES have poorer compliance with psychotherapy and especially CBT compared to patients affected by other psychiatric disorders.⁵ It can be thought that the difficulties experienced by these patients in therapeutic compliance can only be overcome when psychiatrists and neurologists who are educated and knowledgeable about PNES are an important component of the treatment. Clinicians working in this field have important duties to develop new psychotherapeutic interventions specific to PNES.

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Medical considerations among youth with eating disorders

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Eating Disorders have the highest mortality of any mental illness. They are highly complex with profound psychosocial & physical consequences. Despite growing recognition of their prevalence & severity, they remain underdiagnosed & undertreated. Internationally, Paediatricians play an important role in providing patients and their families with the care, resources and guidance they need to reach and maintain recovery.

The Paediatrician has an important role in helping to confirm the diagnosis of an eating disorder, but is also responsible to exclude an alternate cause of weight loss. This can be completed with a detailed and thorough clinical history and examination to look for symptoms and signs of starvation, orthostatic instability and alternative diagnoses.

Many of the medical complications occur as a result of the body adapting to the starvation state by slowing metabolism and decreasing energy requirements. Eventually the body is unable to maintain its regular functions and complications develop in nearly every system, with increasing risk of death. Most complications ultimately reverse with nutritional rehabilitation. Some complications, such as low bone mineral density, growth retardation and structural brain changes, may not fully normalize after prolonged disease.

Initial medical assessment of youth with eating disorders includes a risk assessment, e.g. Junior MARSIPAN1. Recommended baseline investigations as part of this includes haematology, biochemistry and an ECG. Medium to high risk patients may require referral to local hospital for assessment and potential admission for acute medical management and nutrition support. Low risk patients may be accepted to outpatient eating disorder management programmes, where further medical monitoring is recommended.

One of the most feared complications of the treatment of eating disorders is re-feeding syndrome. This potentially life-threatening complication is a result of widespread organ dysfunction related to inadequate adenosine triphosphate production during prolonged under nutrition. Traditional approaches assume a "start low, advance slow" approach to caloric replenishment can prevent re-feeding syndrome, however there is increasing evidence that higher-calorie diets may have benefits without increasing the risk, but an optimal approach is yet to be established.

Word count: 331

Keywords: Eating disorder, paediatrician, medical complication, re-feeding syndrome

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Could artificial intelligence improve pediatric care/treatment?

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With the advancement of technology and advanced registry systems make us able to collect a large amount of data. The use of artificial intelligence (AI), machine learning (ML), deep learning, natural language processing techniques become very popular in the evaluation of this "big data". Sometimes AI can detect causality between variables of this massive data better than humans. This field is no longer just for computer engineers; there is an increased interest from many different disciplines like law, finance, military too. In medicine most studies started as trying to define the findings of radiological images or pathology preparations but it started to spread nearly all other specialties as decision support systems for health professionals.

Using machine learning techniques; the ASA scoring, which is used to evaluate the preoperative risks, has become reliable as anesthesiologists. Of course it is more difficult to achieve this goal in children due to their variable physiology. Other applications related to operations includes face image analysis to predict difficult intubation, predicting the need of blood during or after an operation, by assessing the risk of bleeding; predicting complications after a transfusion by examining hundreds of variables. By these methods, some new underlying factors found.¹

A neonatal jaundice detection system trying to measure bilirubin levels from the images captured from a phone camera has been developed. Using neural networks, an automated method for premature retinopathy screening has been found (which is an important reason for blindness). By using natural language processing and deep learning systems on a database of massive electronic health records of pediatric patients, a high diagnostic accuracy across multiple organ systems has been developed.²

Decision of pediatric intensive care unit admission is critical in pediatrics. Some clinics use the Pediatric Early Warning Score but it needs manual calculating which slows the process. Using ML, this can be done in an instant. There is also a prediction model trying to find the cardiac arrest likelihood of patients in Intensive Care Units, using the physiologic monitors and electronic medical record data. Of course decisions can't be made solely with this methods, but it's undeniable this can point medical team to potentially critical patients thus prioritize their attention.

Sometimes it's hard to diagnose a syndrome fast enough. There is a study, trying to guess clinical exome data using image analysis of portrait photographs of the patients using deep learning algorithms and succeed in some extent.³

Another successful example is "artificial intelligence clinician" which is a reinforcement learning agent and it can choose the most effective treatment method that reduces the death rate of patients with sepsis in intensive care units.

To summarize, the artificial intelligence and related methods can be applied in numerous situations and successfully analyze massive data with ease. This can improve pediatric care and treatment greatly by providing early detection of some harmful situations or developing medical decision support systems.

Keywords: Artificial intelligence, pediatric care, pediatric treatment, machine learning, natural language processing

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Covid-19 pandemic and impact on youth with autism spectrum disorder

Gözde Yazkan Akgül

The Covid-19 pandemic emerged in Wuhan, China in the last months of 2019 and has affected the whole world as of today. The World Health Organization has declared such a large-scale pandemic after a long time. After the declaration of the pandemic, our country has also started to take the necessary measures, just like all the other countries in the world. In Turkey, on April 3, 2020, a curfew was imposed on young people under the age of 20, at least the children with special needs were exempted from this ban

Autistic Spectrum Disorder (ASD) has an estimated prevalence between 1 and 2% and is manifested by atypical, repetitive, and stereotyped behaviors; functional impairment of communication and social interaction, in addition to hypo- or hyper-reactive sensory processing changes.

The everyday routine of children and teens has been disturbed as a result of school closures and quarantine measures, and they have had to deal with a lot of anxiety and stress. A community-based investigation discovered a relationship between the quarantine period and anxiety and depression problems in children and adolescents.

Considering that children and adolescents with Autism Spectrum Disorders (ASD) are more likely to develop anxiety, worry and depression in the face of uncertainty compared to individuals without ASD, limitations in daily life disrupt these routines and have a negative impact on the mental health of many individuals with ASD. In the pandemic, at home, at school and in rehabilitation centers, etc. education processes were interrupted, and children and adolescents with ASD tried to adapt to online education environments by staying at home. As a result, families of children and adolescents with ASD face far greater challenges in maintaining social distance.

Recent study findings emphasize the importance of quickly referring children with ASD for mental health treatment and maintaining continuity of care during and possibly after the pandemic. Parent management training to target disruptive behavior, cognitive behavioral therapy for anxiety and depression, and psychopharmacological monitoring of response and adverse events are all needed to improve access to and implementation of telehealth treatments for this population.

It is of great importance to support individuals with ASD and their families in establishing alternative ways to communicate with each other and to access support, therapies, education and social areas. This process will be possible in a multidisciplinary approach.

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Does placebo heal?: A methodological concern for psychopharmacology research

Yasin Hasan Balcıođlu

Phenomenon of placebo originated from the Latin root "placere" and translated as "to please". Earlier, placebos are considered inert substances which are not directly known to cause an effect on a certain outcome in clinical trials and treatments in clinical practice. However, recent extensive body of evidence has indicated that responses to placebo is a reality and there has been increasing interest in investigating placebo effects by rigorous research methods. Placebo effect is a complex phenomenon that can be described from neurobiological, psychosocial, and epistemological perspectives. Such effects are improvements in patients' symptoms that are attributable to their participation in the therapeutic encounters and interventions, with its rituals, symptoms and interactions (1). Researchers have proposed several theories and models that attempt to identify both the nature and the mechanisms of action underlying the placebo effects. In line with these models, our understanding and conceptualization of the placebo effect has shifted in emphasis from a focus on the inert content of a physical placebo agent to the overall stimulation of a therapeutic intervention. From a psychological point of view, many mechanisms, depending on the particular context where in the placebo is given seem to be responsible for such therapeutic effects. For instance, some responses are initiated and maintained by expectations of symptom change and changes in motivations or emotions, while learning, memory, reward systems, anxiety reduction and meaning are also involved (2). On the other hand, clinician-patient relationship is very important in the occurrence of placebo response. Less conscious processes such as classical conditioning are also involved in clinical responses. From neurobiological perspective, the neural networks that are involved in placebo response included opioidergic-cholecystokinergic-dopaminergic modulatory networks (3). The association of placebo effects with randomized controlled trials has caused confusion because the response in the placebo group is not necessarily a genuine psychosocial response to the stimulation of treatment. To date, some evidence has shown that genetic variations in neurotransmitter pathways and hormonal mechanisms can modify placebo effects which raises the possibility of individualized placebo response monitoring including genetic screening to identify placebo responders and thereby increase the trial's efficacy and improve therapeutic care. In clinical trials the placebo effect should be minimized to optimize drug-placebo differences, thus ensuring that the efficacy of the investigational drug can be truly examined. Once the drug is approved and in clinical use, placebo effects should be maximized by harnessing patients' expectations and learning mechanisms to improve treatment outcomes. Personalized monitoring of placebo responses which involves considering an individual's genetic predisposition, personality, past medical history and treatment experience could also maximize therapeutic outcomes in large-scale trials.

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Coercion and involuntary commitment in mental health care

Yasin Hasan Balcıoğlu

The relevance of coercive treatment for psychiatry has been underestimated for a long period in the history of this discipline. It is only within the last few decades that it has been viewed as an increasingly important area for clinical and research initiatives. This topic is both complex and sensitive. It is complex as it involves clinical, public health, ethical, and legal issues. Furthermore, it is sensitive as it deals with delicate aspects of human experience and interpersonal relations. Involuntary or coercive treatment of the mentally ill is an essential matter in the context of civil law (1). It is among the most controversial issues in mental health care and is the subject of ongoing debate among patients, mental health professionals, and a wider public due to its both ethical and legal amorphous characteristics. In Europe and other developed countries, independent mental health laws are in force and regulate involuntary commitment of psychiatric patients that mainly possess a danger to him/herself or the public due to their mental disorder (2). Mental health laws authorize the psychiatrists to determine a patient’s need for involuntary treatment and hospitalization; however, for instance, clinicians’ decisions would be challenged and frequently need to be backed by a second opinion or an independent tribunal according to the Mental Health Act in the United Kingdom. In some countries including Turkey, responsible psychiatrists should apply to the civil court for involuntary psychiatric treatment for non-criminal psychiatric patients. This course aimed to provide practical insight in the field of coercive psychiatric treatment with several case illustrations that may help psychiatrists regarding evaluation and treatment processes that are encountered in clinical settings.

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Cognitive behavioral therapy of ocd: phenomenology, psychoeducation and therapy planning

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Obsessive-Compulsive Disorder (OCD) is a psychiatric disorder that can emerge at an early age affecting as many as 2%–3% of children and cause significant distress and functional impairment.

Cognitive behavior therapy (CBT) for OCD has been consistently reported as the gold standard intervention for amelioration of symptoms and associated functional impairment (Freeman et al., 2007). The treatment protocol proposed by March and Foa in their National Institute of Mental Health (NIMH) study (March & Mullen, 1998), consists of 14 sessions spread across five phases: (a) psychoeducation, (b) cognitive training, (c) mapping OCD, (d), exposure and response prevention, and (e) relapse prevention and generalization training (March et al 2001).

Although OCD is frequently associated with anxiety disorders, sometimes the diagnostic differentiation with these disorders may not be as easy as it seems. Since obsession is an intrusive cognition like worry, it creates restlessness and anxiety, and it directs the person to actions to relieve

this anxiety, these two concepts that should be differentiated phenomenologically can lead to confusion. This distinction is essential to properly formulating the basic approach in CBT.

Metaphors, as a useful tool in lucidifying the abstract concepts of CBT can foster developmental sensitivity through providing a simple way to understand complex reasoning techniques in children who developmentally lack sound logical reasoning skills.

In this workshop, practical approaches to the diagnostic differentiation between OCD and anxiety spectrum disorders, the basic principles of OCD psychoeducation and how these can be conveyed more easily with metaphors and how to plan therapy will be discussed with an interactive approach.

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Treating the untreatable: A critical understanding of treatment-resistance in psychiatric disorders

Ümit Haluk Yeşilkaya

Since the year 2000, there has been an exponential increase in papers on treatment resistant psychiatric disorders. Treatment resistance affects 20–60% of patients with psychiatric disorders; and is associated with increased healthcare burden and costs up to ten-fold higher relative to patients in general. Whilst there has been a recent increase in the proportion of psychiatric research focussing on treatment resistance, in absolute terms this is less than 1% of the total output and grossly out of proportion to its prevalence and impact. A more fundamental question is whether a categorical definition of treatment resistance makes sense. Do we have evidence to delineate such an entity and, if so, what is the possible clinical practice benefit? When it results in putting a threshold before more effective treatment options can be implemented, why should those options not be chosen as an earlier treatment step?

The evidence for a distinct psychopathological or neurobiological nature of treatment resistant psychiatric disorders, and hence for a categorical definition of treatment resistance, is limited and, outside of a clinical trial context, not very useful. Key outstanding issues for treatment resistance include heterogeneity and absence of consensus criteria, poor understanding of neurobiology, under-investment, and lack of treatments. This expression may fit better with the recurrent or chronic nature of some psychiatric disorders. Achieving a meaningful life in spite of limitations can be the ultimate treatment goal.

Expert testimony in forensic psychiatry practice

Mustafa Solmaz

Identifying the boundaries and context of the interaction between psychiatry and the law is a subject of a long-standing puzzlement for the members of both professions. Nevertheless, it is well known that there are certain paths in which both civil and criminal legal systems rely on psychiatric input. Psychiatrists have been increasingly aware of the need for expertise in legal aspects of psychiatric practice and in satisfying the legal systems' needs for psychiatric participation in adjudicating matters involving mental health. Indeed, such a necessity has led to the fact that forensic psychiatry has become one of the most acknowledged and respected psychiatric subspecialties in particular countries in recent decades. Forensic psychiatry primarily covers the field of expert witnessing; it also deals with the patients' clinical needs. Mens rea is the mental element of an offense, and psychiatric disorders have the potential to influence the competency or capacity to form any particular intention or behavior that can lead to a crime. Therefore, psychiatrists are frequently asked to evaluate a defendant's mental state at the time of the offense to determine the required mens rea that is related to the crime. In different countries, psychiatrists are involved in various stages in law systems. For instance, assessment for insanity defense (or competency assessment for criminal responsibility) is one of the vital parts of forensic work in Mainland Europe countries, including Turkey, while very few cases of insanity come to the courts in Anglo-American law. On the other hand, in the United Kingdom, if there is a suspicion of a presented mental disorder of the offender that is thought unfair to proceed with the trial, psychiatrists are invited to assess an individual's fitness to plead (competence to stand trial in the United States) (1). Clinicians are needed to indicate whether a defendant has sufficient understanding and cognition to comprehend the purpose of trial proceedings or to defend him/herself in front of the court. Although forensic psychiatry usually deals with the assessment and management of mentally disordered offenders and other patients with mental disorders who are, or have been potentially or actually violent, civil legislations also occasionally require psychiatric testimony. Civil law which relies heavily upon common law is the term used for the law dealing with disputes between individuals or organizations. Psychiatrists become involved in civil law on an occasional basis which usually requires a detailed clinical evaluation for judgment and decision-making abilities. Psychiatrists may be asked to comment on the mental capacity or state of mind of a patient or individual in relation to a contract or statement, to consider whether a particular act or omission committed by a defendant has caused a psychiatric disorder, or to comment a patient's requisite for authorization of a legal representation or a legal supervision in order to employ official proceedings (2). The civil law system used in most parts of the world is quite different. In Turkey, the Turkish Civil Code regulates the issues mentioned above that become subjects of psychiatric expert witnessing. In this course, major principles of forensic psychiatric evaluation in the context of criminal and civil law will be presented with demonstrative case examples.

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Covid -19 and psychiatry, what have we learned?

Ayşe Sakallı Kani

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Covid-19 pandemic and the SARS-CoV 2 virus itself caused a serious global mental health problem via the uncertainty about the progress, fear of being infected, loss of the loved ones and through neurobiological mechanisms in patients whom are infected by the virus. At this presentation we will review the current literature about the neuropsychiatric manifestations of Covid-19 infection and discuss the psychological and neurobiological mechanisms underlying these conditions.

Psychobiology and psychopharmacology of trauma

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Understanding the psychobiology and psychopharmacology of trauma is important for both the biological approach and (regardless of the school in which they work) psychotherapists. It is the study of traumatic material in the therapeutic relationship that is effective in trauma. But in some cases, post-traumatic symptoms can be so overwhelming that the client can stop treatment after a few sessions, often without explanation and without the therapist returning their phone calls. In addition, it is seen that people who have been exposed to trauma frequently resort to alternative and complementary medicine techniques. These techniques can be interfere both for psychopharmacology treatment and for psychotherapeutic interventions. From this perspective, pharmacotherapy can be a "stepping stone" in helping clients heal. In this presentation, the use of information about the psychobiology and psychopharmacology of trauma in psychotherapy will be discussed.

Current approaches to sleep problems in autism spectrum disorder

Abdullah Bozkurt

Autism spectrum disorder (ASD) is a biologically based neurodevelopmental disorder characterized by permanent deficits in social communication and social interaction and limited, repetitive behaviors, interests, and activities. As a result of the increase in ASD frequency, more families are affected, and studies on the etiopathogenesis and clinical of the disorder are increasing. Among these study areas, sleep is considered an important one.

Sleep is an important physiological phenomenon for typical synaptic development and brain maturation. Children with sleep disorders are vulnerable to emotional and cognitive development. Sleep disorders are associated with neural maturation and organizational difficulties in children with ASD. It is stated that sleep disorders are endemic among children with ASD. Studies report that the prevalence of sleep problems (especially insomnia) in children with ASD is between 40% and 80%, compared to 20% to 40% in typically developing children.

A meta-analysis study that included 10 studies that used actigraphy or polysomnography to define sleep parameters such as total sleep time, sleep latency, and sleep efficiency in children with ASD compared to typically developing children provides important information. For children with ASD, total sleep time was found to be 32.8 minutes less per day, on average, with an average sleep latency of 10.9 minutes and an average sleep efficiency of 1.9% less than their peers. The magnitude of the difference in mean sleep latency and sleep efficiency increases with increasing age¹.

In a study comparing the sample to 50 age/sex-matched families of children with autism and 50 families with other developmental disabilities (intellectual disability, cerebral palsy, and general developmental delay), at least 78% of families of children with autism were compared to families of children with other developmental disabilities. (34%) reported significant sleep problems. Specifically, children with autism experience bed resistance, sleep anxiety, and night wakings more frequently than children with other developmental disabilities. The causes of sleep disturbance in children and adolescents with ASD have not been identified. It is thought to occur secondary to complex interactions between biological, psychological, social-environmental, and familial factors and child-rearing practices that are not conducive to good sleep².

There is increasing interest in the relationship between sleep disturbance and daytime problem behavior in children and adolescents with ASD. Poor sleep has been associated with increased internalization and externalization problems, including tantrums, oppositional behaviors, physical aggression, irritability, self-harm, depression, anxiety, mood lability, inattention, and hyperactivity³.

Treatment of sleep disorders in individuals with autism includes behavioral and cognitive therapy, pharmacological treatment, and sensory interventions. Early recognition of sleep problems with objective and subjective methods will contribute to the development of interventions that will help children and adolescents with ASD, caregivers, and families.

Before pharmacological interventions, it is important to use behavioral interventions to ensure proper sleep hygiene and reduce potential sleep-related risks. Medications are unlikely to be effective in the absence of an appropriate sleep schedule. If the child does not respond to the suggested behavior changes, medications may be considered.

keywords: autism spectrum disorder, sleep, insomnia, sleep disorders,

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Covid-19 pandemic and impact on youth with autism spectrum disorder

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The Covid-19 pandemic emerged in Wuhan, China in the last months of 2019 and has affected the whole world as of today. The World Health Organization has declared such a large-scale pandemic after a long time. After the declaration of the pandemic, our country has also started to take the necessary measures, just like all the other countries in the world. In Turkey, on April 3, 2020, a curfew was imposed on young people under the age of 20, at least the children with special needs were exempted from this ban.

Autistic Spectrum Disorder (ASD) has an estimated prevalence between 1 and 2% and is manifested by atypical, repetitive, and stereotyped behaviors; functional impairment of communication and social interaction, in addition to hypo- or hyper-reactive sensory processing changes.

The everyday routine of children and teens has been disturbed as a result of school closures and quarantine measures, and they have had to deal with a lot of anxiety and stress. A community-based investigation discovered a relationship between the quarantine period and anxiety and depression problems in children and adolescents.

Considering that children and adolescents with Autism Spectrum Disorders (ASD) are more likely to develop anxiety, worry and depression in the face of uncertainty compared to individuals without ASD, limitations in daily life disrupt these routines and have a negative impact on the mental health of many individuals with ASD. In the pandemic, at home, at school and in rehabilitation centers, etc. education processes were interrupted, and children and adolescents with ASD tried to adapt to online education environments by staying at home. As a result, families of children and adolescents with ASD face far greater challenges in maintaining social distance.

Recent study findings emphasize the importance of quickly referring children with ASD for mental health treatment and maintaining continuity of care during and possibly after the pandemic. Parent management training to target disruptive behavior, cognitive behavioral therapy for anxiety and depression, and psychopharmacological monitoring of response and adverse events are all needed to improve access to and implementation of telehealth treatments for this population.

It is of great importance to support individuals with ASD and their families in establishing alternative ways to communicate with each other and to access support, therapies, education and social areas. This process will be possible in a multidisciplinary approach.

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Implementation of ICF (the international classification of functioning, disability and health)

Melek Er-Sabuncuoğlu

The aim of this course is to offer a new perspective to the field practices and academic studies of practitioners, managers, academics and policy makers who carry out early childhood Professionals and to contribute to the highest level of use of the services provided by the child and the family, thanks to the International Functionality, Disability and Health Classification System (ICF), which is a classification tool used at the international level, and the acquisition of the common language in interdisciplinary studies.

The course consists of two parts. In the first part, information will be given about the ICF philosophy and its components. In the second part of the course, the examples prepared will be shared with the prepared examples.

The International Classification of Functionality, Disability and Health (ICF, WHO 2001) is a classification system that is used not only in defining deficiencies and limitations, but also in determining the competence and skills of typical developing children. It is a supplement that allows parents and professionals in different fields (Preschool Teachers, Child Developers, Educators, Nurses, Physicians, Psychologists, Therapists, etc.) to use a common language. Thanks to the classification, which is increasingly used in education and rehabilitation and inclusion services provided to children with special needs in the world, it is possible to contribute to the environmental assessment of the child and family with the use of the common language of all professionals involved in the early intervention process and the family. It can also provide monitoring of typical developmental children and early detection of possible risks.

In addition, ICF-CY provides parents with problem-solving tools and allows parents to participate fully in the child's education, treatment and therapy program.

Professionals participating in this course are expected to have a basic knowledge of ICF implementation.

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What does autism tell us immunologically?

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Background and aim: Autism is one of the major important neurodevelopmental disorders that is usually diagnosed in childhood, characterized by problems in social interaction and communication, repetitive behaviors, and restrictive interests. Autism spectrum disorder (ASD) has a rather heterogeneous etiology. Despite many studies, the etiology of autism is unknown clearly. In this oral presentation, the aim is to review the relationship between the dysfunction or alteration of the maternal immune response and autism in the offspring.

Methods: In this presentation, articles related to the maternal immune system and autism, whose full text can be accessed in English, are reviewed.

Results: As the incidence of autism increased after congenital rubella infection, other infections were investigated. It has been found that especially bacterial infections and multiple infections during the hospitalization of pregnant women increase the risk of autism. Based on congenital infection; the effect of the mother's immune system on the child was wondered. It is suggested that the relationship between autism and the immune system may be in different ways; firstly, autism and the immune dysfunction or alteration may be completely independent. Another option is that genetic and environmental factors that cause dysfunction or alteration in the immune system may simultaneously increase the risk of ASD. As a third option, immune dysfunction may be involved in the etiology of autism. The maternal immune activation model was investigated using various antigens. It was thought that maternal immune activation might cause core symptoms of autism in animal models such as social interaction, repetitive behaviors, decreased sound. Some significant changes were detected in the developing fetal brain, particularly in the cerebellum and motor cortex in male mice. In the process, both the effects on the placenta and the immunological factors that pass through the placenta were investigated. Many pro-inflammatory, anti-inflammatory cytokines and chemokines, and acute-phase

proteins have been evaluated in various studies. It has been suggested that various chemokines, cytokines may act on the developing fetal brain. Especially studies have focused on the mid-gestational period, which is an important neurodevelopmental period, seems to be a critical period in the development of the hippocampus, cortex, longitudinal fissure, sulcus and gyri, cerebellum, motor, and sensory cortex. Maternal autoimmune diseases such as thyroiditis and hypothyroidism, rheumatoid arthritis, systemic lupus erythematosus, and some antibodies have been associated with an increased risk of autism.

Conclusion: ASD is one of the important neurodevelopmental disorders of childhood and it is observed that there are differences in the maternal immune system. Differences and dysfunction in both innate and adaptive immune systems have been demonstrated. However, considering the heterogeneous etiology of ASD, it is thought that further research is needed to reveal the causal relationship between the maternal immune system and ASD.

Keywords: autism, immunology, maternal immune activation, maternal autoantibody related autism, neuroimmunology

Trauma-focused Cognitive Behavioral Therapy For Child and Adolescent

Süleyman Çakıroğlu, Vahdet Görmez

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Trauma-focused cognitive behavioral therapy (TF-CBT) is an evidence-based treatment model designed to assist children, adolescents, and their families in overcoming the negative effects of a traumatic experience [1]. This evidence-based method has proven effective for treatment after multiple traumas or a single traumatic event. Desiring to better understand the challenges faced by traumatized children and adolescents, TF-CBT has expanded traditional cognitive-behavioral methods to include family therapy. In TF-CBT, interventions tailored to meet the needs of children and adolescents experiencing emotional and psychological difficulties because of trauma are integrated with humanistic, cognitive-behavioral, and familial strategies. This treatment is short-term and usually takes no more than 16 sessions [1]. The TF-CBT is a skills-based model and requires the child and parent to apply its components to be optimally effective. Parents and children are often asked to practice skills at home. The aim of TF-CBT is to ensure that both the child and the parent continue to develop their skills and communication techniques in a healthy way. The success of TF-CBT is largely based on a trusting, genuine therapeutic relationship between the therapist, child, and parent. The therapist combines individual child and parent sessions as well as joint sessions using family therapy principles. Involving the non-criminal parent in therapy can help the parent cope, and this also allows the parent to support the child within this treatment framework. TF-CBT practitioners seek to provide parents with the necessary resources and skills to help their children cope with the psychological consequences of abuse or other trauma. TF-CBT basically consists of 3 stages. The first stage is done to provide a stabilization. It includes the introduction of General Psychoeducation and CBT. The second phase is the main application of therapy and traumatic events are handled and processed. The final stage focuses on avoidance behaviors to prevent recurrence [2]. The aim of this course is to introduce the general scope of TF-CBT and to introduce the general principles for its implementation.

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Current Promising Progresses in Genetic of Autism Spectrum Disorder

SERKAN TURAN

A major complicating factor in diagnosing, treating, and understanding autism spectrum disorder (ASD) is that defining the disorder is solely based on the observation of behavior. A genetic basis for ASD is now well established, and with the availability of high-throughput microarray and sequencing platforms, major advances have been made in our understanding of genetic risk factors. Biomarkers are an objective way to identify and measure biological abnormalities for diagnostic purposes as well as to measure changes resulting from treatment. The detection of rare variants by genomic technologies will improve our understanding of the genetic architecture of ASD and other neurodevelopmental and neuropsychiatric disorders. Although the field of biomarker research in autism spectrum disorder is promising, it appears it is currently in the early stages of development. Biomarkers to stratify autism spectrum disorder risk during the prenatal and postnatal pre-symptomatic period may be particularly helpful for starting interventions early when they might be most effective, and biomarkers to predict treatment response may expedite habilitation for those already diagnosed. It is clear that biomarker development for ASD is only in the early stages. Common themes

in areas of future development include the replication of studies with more diverse populations, more randomized controlled trials with larger numbers of participants, and better-defined cohorts with gold standard diagnostic instruments.

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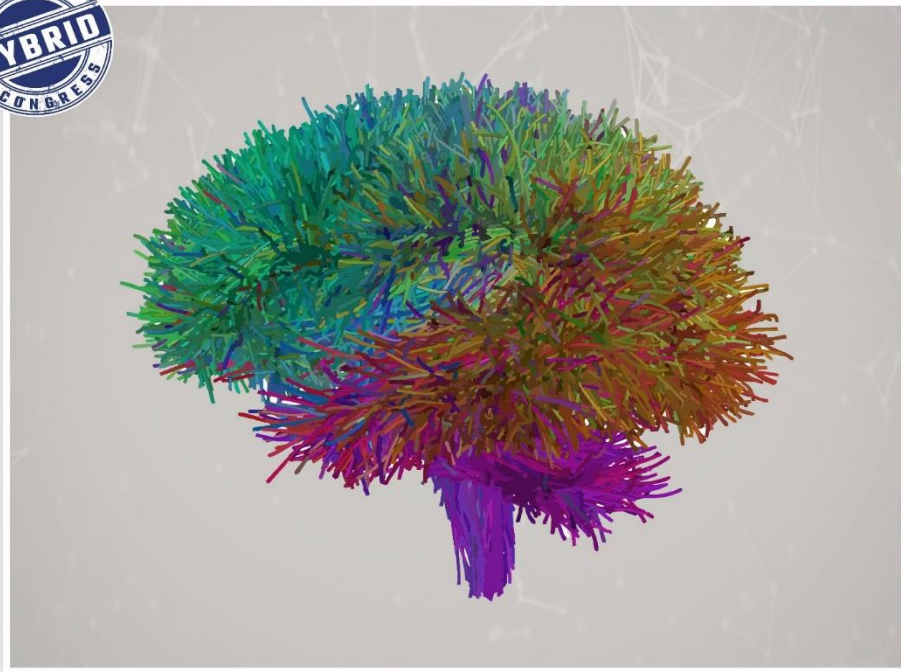
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