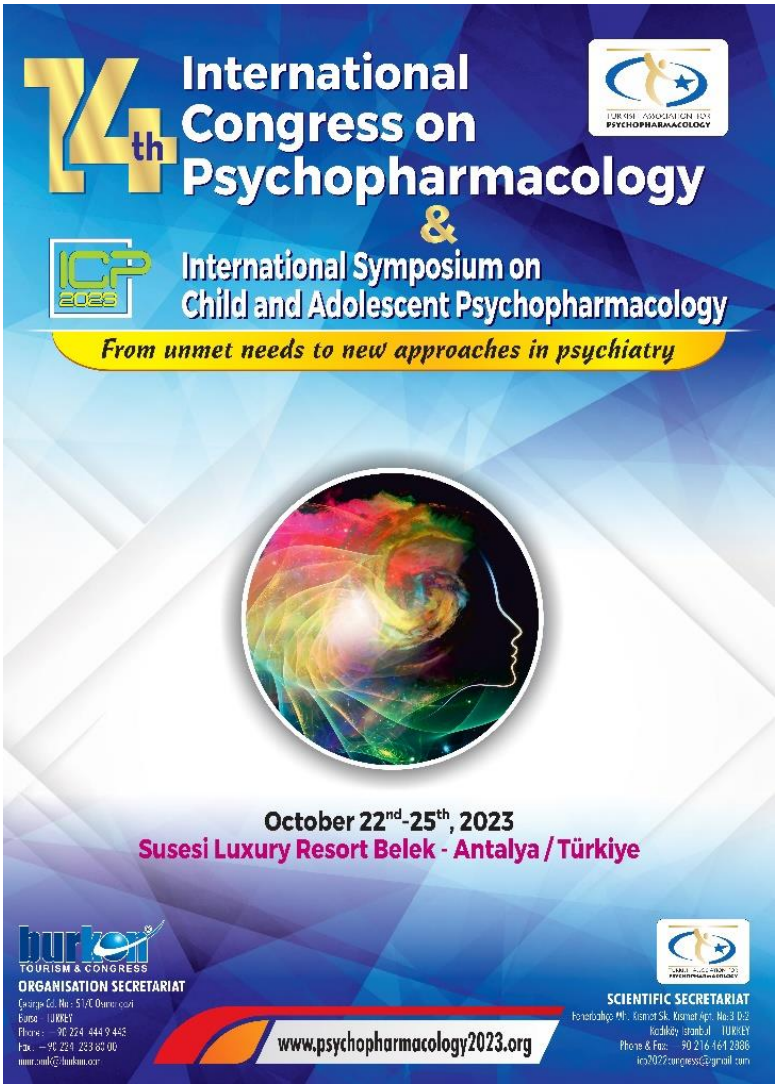

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ICP 2023 Symposia Presentations

INVITATION

It is our great pleasure to announce that the Turkish Association for Psychopharmacology (TAP)'s 14th International Congress on Psychopharmacology & International Symposium on Child and Adolescent Psychopharmacology (ICP 2023) will be held on November 22-25, 2023 in Antalya, Turkey.

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Symposia Presentations

14th International Congress on Psychopharmacology & International Symposium on Child and Adolescent Psychopharmacology

[Abstract:0385] [Addiction Psychiatry]
The Short Path from Childhood to Adulthood in Addiction

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Alcohol substance use disorder in adolescents is an important public health problem that significantly increases morbidity and mortality. Epidemiological studies show that substance use behavior starts mostly during adolescence. According to the 2019 data of the "National Survey on Drug Use and Health (NSDUH)" conducted annually in the USA, the rate of lifetime illicit substance use at least once in the 12-17 age range was reported as 24.5%, marijuana 15.4%, cocaine 0.7%, heroin 0.1%, hallucinogens 2.3%, inhalants 8.5%, methamphetamine 0.3%. Adolescence is a critical period not only for substance use but also for behavioral problems. Many changes are observed together in this period. Gaining independence, being included in peer groups, the desire to be popular in peer groups, separation from parents, and the importance of body image can be counted among the characteristics of this period. These developmental characteristics may increase the risk of smoking, alcohol and substance abuse. Generally, adolescents use substances as a result of the combination of one or more individual, familial and environmental factors. Individual factors include cognitive, behavioral, social, personal, biological, substance-related and developmental factors. Adolescents may cognitively evaluate behaviors associated with substance use as normal rather than risky. However, the self-medication hypothesis is another explanation for adolescents' substance use behaviors. Low self-esteem, poor behavior control skills and low self-esteem are psychological factors that lead to substance use. Families may contribute directly or indirectly to substance use behaviors of children and adolescents. Family conflicts, inconsistent parental attitudes, weak family relations, poor parental supervision can be counted among familial factors. Studies show that social influences are a strong risk factor for smoking, alcohol and substance use starting in adolescence. Adolescents can easily model their parents, peers, other family members, a well-known person, a song lyric. "Why do adolescents engage in more risky behaviors than adults?". This question is the starting point of studies on brain development during adolescence. In summary, this can be explained by the fact that although the development of the prefrontal cortex is not yet complete, the development of the limbic system is almost complete. Risky behaviors are associated with subcortical structures. These structures are more active in adolescents than in children and adults. Comorbid conditions are common in alcohol and substance use disorders in adolescence. The frequency of comorbidity increases 2-3 times in adolescents with addiction problems. Mood disorders, attention deficit hyperactivity disorder, conduct disorder, post-traumatic stress disorder, anxiety disorders are common comorbid conditions. In the presence of psychopathology accompanying substance use disorder in adolescence, the clinical picture is more severe and treatment is more resistant.

Keywords: Addiction, Substance Use, Dependence, Child, Adolescent, Risk Factors

References

1. 2019 National Survey of Drug Use and Health (NSDUH) Releases. 2019, 20 Kasım 2020 tarihinde https://www.samhsa.gov/data/release/2019-national-survey-drug-use-and-health-nsduh-releases adresinden alındı.
2. Kenneth, W.G., Gilbert, J.B. (2014) Preventing substance use among children and adolescent. Ries, R.K., Fiellin, D.A., Miller, S.C., Saitz, R. The ASAM Principles of Addiction Medicine Fifth Edition. China: Wolters Kluwer Health-ASAM.
3. Lochman, J. E., & van den Steenhoven, A. (2002). Family-based approaches to substance abuse prevention. Journal of Primary Prevention, 23(1), 49-114.
4. McCool, J. P., Cameron, L. D., & Petrie, K. J. (2001). Adolescent perceptions of smoking imagery in film. Social science & medicine, 52(10), 1577-1587.
5. Kardaş, Ö. (2019). Ergenlerdeki Alkol Madde Kullanım Bozukluğunda Komorbidite. Cüneyt E. Alkol ve madde kullanim bozukluklarinda komorbidite ve özel durumlar, İstanbul: Yerküre Yayıncılık ve Tanıtım, 189-199.

[Abstract:0405] [Personality disorders]
The Evolutionary Dimension of Narcissism

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Understanding the origins of narcissism requires a thorough investigation. Current explanations tend to focus on environmental and experiential factors (e.g., Kohut 1971), often neglecting biological and evolutionary aspects. While some papers attribute narcissism to specific parenting styles, cultural shifts towards individualism, increased social media usage, or exposure to narcissistic celebrities, these explanations are limited in addressing potential biological contributions. Despite the significance of the modern environment in shaping narcissism, biological factors also play a

role. Narcissism, like other personality traits, possesses heritable components. That narcissism encompasses a biological aspect that must be considered within a comprehensive account of its origins. Different perspectives on the interaction between genetic and environmental factors in shaping narcissism are needed. Specifically, three explanations for the origin of narcissism are explored: Narcissism's roots are in physical attributes that subsequently mold psychological development; narcissism is molded by intricate gene-environment interactions, and narcissism relates to multiple genes with modest impacts that have undergone selection pressures throughout human evolutionary history. Drawing from this third explanation, the model for the origins of narcissism, posits that narcissism emerges due to selection for short-term mating and dominance, as these traits enhance reproduction and survival, respectively.

Keywords: Personality Disorders, Evolutionary, Narcissism

[Abstract:0408] [Mood disorders]
Psychoeducation for Bipolar Disorder

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Psychoeducation initiatives generally represent treatment and rehabilitation programs focusing on subjects such as providing information about the disease, identifying and coping with likely problems, and the provision of support. Psychoeducation measures in bipolar disorders (BD) are recommended as the first psychosocial interventions in the American Psychiatric Association treatment guidelines. Similarly to psychopharmacology, psychoeducation practices in BD primarily focus on ameliorating the disease symptoms or improving its course. The effect mechanism can be considered at three levels. Basic mechanisms; the creation of awareness of the disease, the early detection of warning signs, and adherence to treatment. Secondary mechanisms; controlling stress, life style adjustment, and the prevention of substance use and self-destructive behavior. Finally, ideal therapeutic targets aim to increase psychosocial functionality between attacks, to create awareness regarding remaining subthreshold symptoms and the psychosocial deterioration caused by them, to raise awareness of the psychosocial outcomes of attacks, and to improve well-being and quality of life.
While psychoeducation measures can be applied alone, they can also be employed within psychotherapeutic intervention programs. Psychoeducational psychotherapy, “Family- and Child-Focused Cognitive Behavioral Treatment” (RAINBOW), “Family-Focused Psychotherapies for Adolescents with Bipolar Disorder,” “Dialectical Behavior Therapy,” and “Interpersonal Relationships and Social Rhythm Therapy” intervention programs have been developed to complement drug therapy in BD. All these intervention programs are family-centered and include psychoeducational components. Randomized controlled studies performed with patients diagnosed with BD have shown the primary and secondary benefits of psychoeducational psychotherapies and family-centered therapies.
In conclusion, psychoeducation measures have long been used as complementary therapies in BD. However, the publication of randomized controlled studies revealing evidence of its effects is relatively more recent. Studies have shown that psychoeducation initiatives contribute significantly to recognition of the disease by the patient and family, increasing adherence to treatment, preventing episodes, and reducing numbers and lengths of hospital stays. Psychoeducation measures are complementary therapies the use of in addition to drug therapies which is currently strongly recommended, although further randomized controlled studies are now needed for the pediatric population.

Keywords: bipolar disorder, psychosocial interventions, psychoeducation, pediatric bipolar disorder

[Abstract:0409] [Neuroscience: Neuroimaging-Genetic Biomarkers]
Genetic approaches to the treatment of Alzheimer 's disease

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Alzheimer's disease (AD) is a progressive brain disorder characterized by dementia that typically occurs in middle or late life and accounts for 60-80% of all dementia diagnoses worldwide It is estimated that there are 44 million people worldwide suffering from Alzheimer's disease (AD), and this number is expected to exceed 115 million by 2050. AD incidence is more common in Western Europe and has a higher gender-specific structure in women. AD is characterized by the accumulation of amyloid-β (Aβ), the main component of senile plaques (SPs), along with the intracellular accumulation of hyperphosphorylated tau protein, known as neurofibrillary tangles (NFTs). These are histopathological features of the disease and are products of abnormal variants of normally functioning proteins, Aβ and Tau proteins. Axonal transport and gaps in neuronal loss accompany these histopathological changes.

However, the full neuropathological etiology of AD is not yet fully understood. The pathogenesis of AD relies on the combination of genetic factors and various epigenetic events. Epigenetic modifications such as DNA methylation, histone modification, and non-coding RNAs like MicroRNAs (miRNAs) have been observed to strongly contribute to aging and AD.
A decrease in BDNF-TrkB signaling leads to a decline in spatial memory, while overexpression of full-length TrkB enhances learning and memory. BDNF has been found to be associated with neuropsychiatric and neurodegenerative disorders, playing a significant role in the progression of Alzheimer's disease (AD). Reduced levels of BDNF messenger RNA (mRNA) and BDNF protein have been observed in the brain cortices of individuals with AD, and similar results have been found in AD animal models. Studies have shown that BDNF exerts a protective effect against the neurotoxicity of Aβ peptide by activating the TrkB and ERK1/2 signaling pathways and repairing damage induced by Aβ peptide. Cunha et al.'s (2010) study demonstrated that BDNF gene therapy prevented neuronal degeneration and stimulated neuronal function in individuals with AD.
Research suggests that the dysfunction of BDNF plays a critical role in the development of AD and that BDNF polymorphisms may confer an increased risk of AD. BDNF is believed to be crucial for neuronal survival and brain functions.
Cunha et al.'s (2010) study demonstrated that BDNF gene therapy prevented neuronal degeneration and stimulated neuronal function in individuals with Alzheimer's disease (AD). Research suggests that the dysfunction of BDNF plays a critical role in the development of AD and that BDNF polymorphisms may confer an increased risk of AD. Due to this active role in neuronal survival and brain functions, the relationship between BDNF and AD has been extensively investigated in numerous studies over the past decade
MiRNAs are non-coding RNA molecules that are typically 21-24 nucleotides in length. They generally lead to the suppression of translation or degradation of mRNA. MiRNAs are considered a class of gene regulatory elements by many researchers and are associated with roles in the development of Alzheimer's disease (AD). They have been shown to be necessary in the molecular control of neurological development and aging when linked to AD. MiRNAs have been found to maintain stable levels in both blood and cerebrospinal fluid (CSF) while showing an association with AD-related proteins in the brain.
Tian et al. aimed to evaluate whether miR-206 could alter BDNF in the pathogenesis process of Alzheimer's disease (AD). Interestingly, miR-206 expression was higher in the hippocampus, plasma, and cerebrospinal fluid (CSF) of APP/PS1 mice compared to wild-type (WT) mice, while BDNF levels were lower in the hippocampal tissue, plasma, and CSF of APP/PS1 mice.
Bonneau et al. (2019) stated that several pharmaceutical and biotechnology companies have initiated miRNA projects in their efforts to develop miRNA-based therapeutics. Encouraging results from recent clinical trials suggest that miRNA-based pharmacological approaches may meet the requirements for successful therapeutic outcomes in the future. Despite this potential, the development of miRNA-based and miRNA-targeted therapeutics still requires time to overcome two major challenges: stability and delivery. Therefore, most of these molecules are still in the preclinical stage, with only a fraction of them advancing to the clinical evaluation stage

Keywords: Alzheimer, BDNF, epigenetic

[Abstract:0410] [Personality disorders]
Clinical manifestations of pathological narcissism

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Pathological narcissism is characterized by a chronic pattern of grandiosity, a preoccupation with fantasies of ultimate success, exaggerated responses to criticism, a high level of self-esteem, and subsequent disturbances in interpersonal relationships. The prevalence within the clinical population ranges between 2% and 16%. Some researchers classify narcissism into maladaptive and adaptive categories, the distinction between these being rooted in functionality. In clinical practice, the term 'narcissism' is often used to refer to maladaptive narcissism. According to certain researchers, pathological narcissism represents a clinical spectrum and can essentially be classified as overt and covert narcissism, with individuals falling along this spectrum. Conversely, another group of researchers typically delineates five types of narcissism: overt (grandiose), covert (vulnerable), antagonistic, communal, and malignant narcissism. The clinical manifestations of narcissism may encompass traits such as elevated self-esteem, extroversion, competitiveness, reduced empathy, and propensity for aggression. Additionally, these manifestations may also present in different clinical symptoms, including introversion, low self-esteem, avoidance behaviors, and a pronounced need for approval. It is noteworthy that while substance use disorders and legal complications tend to be more prevalent in the former group as compared to the latter, the latter group demonstrates a higher incidence of depression and anxiety. Psychotherapy stands as the primary treatment modality for all these variations of narcissism. Nonetheless, pathological narcissism frequently presents with comorbidities. These comorbidities may encompass mood disorders, acute psychotic disorders,

somatoform disorders, substance use disorders, depression, and even potential suicide attempts. Should such comorbidities coexist, treatment planning should prioritize addressing the comorbidity first. In such instances, the prognosis becomes contingent upon the associated comorbidity, and the general prognosis of pathological narcissism remains uncertain.

Keywords: pathological narcissism, narcissistic personality disorder, grandiosity, vulnerability

[Abstract:0411] [Personality disorders]
Psycotherapy of pathological narcissism

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Narcissism is a recurring topic of psychoanalysis since its beginning and has gained a place in everyday language of modern societies. Treatment of narcissistic personality disorder is a growing concern for mental health professionals, especially given the lack of methodologically rigorous treatment outcome studies to date. Several treatment approaches are specifically adjusted to pathological narcissism and narcissistic personality disorder. Mentalization-based treatment, Dialectical Behavior Therapy, metacognitive interpersonal therapy, cognitive behavioral therapy, schema-focused therapy is some of them but so far, no single treatment strategy has proven superior or reliable. Psychoanalytic and psychodynamic therapy are the most common. Within the cognitive realm, schema-focused therapy and metacognitive inter personal therapy are modalities developed specifically for narcissistic personality disorder. Dialectical Behavior Therapy can be useful for some patients who are motivated to learn skills for improving control, self-regulation, and agency. Psychoeducation can promote patients' understanding of their emotional and intrapsychic experiences, diminish fear of the unknown and uncontrollable, and in a similar way help strengthen their sense of internal control. Mentalization-based treatment can be helpful for high achieving professional people in crises as it focuses on self-regulation and awareness of mental states in others. Transference-Focused Psychotherapy is one of these approaches, has a clinically proven significant success in the treatment of narcissistic personality disorder. This approach, which has formulated by Otto Kernberg, is also known as "Modern Object Relativity Theory". Analytical writings of Otto Kernberg and Heinz Kohut constitute the major contributions to the development of narcissistic personality disorder theory. Transference-FocusedP Psychotherapy, a dynamic-based approach, aims to resolve the identity dissociation and integrate internalized object relations by interpretating the transferences of client under narcissistic organization in therapy session. No matter which therapy method has used a flexible treatment approach, adjusted to the individual patient's functioning, motivation and degree of self-awareness, is strongly recommended, as is a respectful, consistent, attentive, and task-focused therapeutic attitude.

Keywords: narcissistic personality disorder, Narcissism, Transference-Focused Psychotherapy

[Abstract:0412] [Mood disorders]
The potential use of ebselen in treatment-resistant depression

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Ebselen (2-phenyl-1,2-benzisoselelnazol-3(2H)-one) is an organoselenium compound that was characterised as a potential selenium donor for the antioxidant-scavenging enzyme glutathione peroxidase (GPx). Ebselen itself can act as a GPx mimetic and antioxidant. Ebselen suggested as a lithium mimetic acting via inhibition of IMPase. In humans, therapeutic doses of ebselen lower brain inositol levels, suggesting target engagement with IMPase, but ebselen also decreases glutamate cycling, which could have implications for its antidepressant and neuroprotective effects.
The effect of ebselen on 5-HT2A receptor function in mice is found as the increased extracellular 5-HT and the increased regional brain 5-HT synthesis. Because actions on the serotonin system are thought to underpin the antidepressant effects of lithium in treatment resistant depression, this suggests that ebselen may also have utility for this condition. Relative to lithium, ebselen is well tolerated and safe. Both in healthy volunteer studies and clinical trials, the frequency and intensity of side effects were low and comparable with those of the placebo.
There are no published studies of ebselen in depressed patients, either as a monotherapy or as augmentation treatment in treatment resistant depression patients yet. In the rodent model of depression, ebselen showed an antidepressant-like effect, evident as decreased immobility time in forced swimming tests. In human studies, ebselen affected emotional processing in a manner typical for antidepressant medications and it improved the recognition of positive vs. negative facial expressions in the facial emotion recognition task.

Neuropsychological studies of emotional processing and reward-seeking provide further support for the potential antidepressant effect of ebselen. Ebselen also lowers impulsivity, raising the intriguing possibility that, it may be of benefit in the prevention of suicide in patients with mood disorders.

Keywords: Ebselen, treatment resistant-depression, serotonin, mood disorders

References

1- Ramli FF, Cowen PJ, Godlewska BR. The Potential Use of Ebselen in Treatment-Resistant Depression. Pharmaceuticals 2022:15(4);485.
2- Singh N, Halliday AC, Thomas JM, Kuznetsova OV, Baldwin R, Woon ECY, et al. A safe lithium mimetic for bipolar disorder. Nat. Commun 2013:4;1332.
3- Antoniadou I, Kouskou M, Arsiwala T, Singh N, Vasudevan SR, Fowler T, et al. Ebselen has lithium-like effects on central 5-HT(2A) receptor function. Br. J. Pharmacol 2018:175;2599–2610.
4- Posser T, Kaster MP, Baraúna SC, Rocha JB, Rodrigues AL, Leal RB. Antidepressant-like effect of the organoselenium compound ebselen in mice: Evidence for the involvement of the monoaminergic system. Eur. J. Pharmacol 2009:602;85–91.
5- Masaki C, Sharpley AL, Cooper CM, Godlewska BR, Singh N, Vasudevan SR, et al. Effects of the potential lithium-mimetic, ebselen, on impulsivity and emotional processing. Psychopharmacology 2016:233;2655–2661.

[Abstract:0416] [Others]

A Different Perspective on Psychiatric Disease: Gut Brain Axis and Microbiota/Mood Disorders and Microbiota

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It is thought that changes in the microbiota, defined as the community of microorganisms living in a certain environment, may cause significant changes in mood, cognition, and behaviors. The Microbiota-Gut-Brain (MGB) Axis acts as a physiological system between the gastrointestinal tract (GIT) and the brain through nutritional stimuli as well as through both infectious and immune pathways and non-infectious and non-immune pathways consisting of endocrine, afferent and efferent neuronal signals. In recent years, there has been an increasing number of studies showing that patients with Major Depressive Disorder (MDD) have altered gut microbiome composition compared to healthy controls, although the nature of the changes in each study differs. Studies have shown that when the microbiome of an individual with MDD is transferred to a healthy rodent, it can cause depressive behaviors in the recipient. These studies showed that microbiota may play a causal role in the pathophysiology of depression and brought to the fore the concept of regulating microbiome composition for mental health. According to some authors, it is suggested that depression is related to the intestinal microbiota structure and that in this way, a distinction can be made between depression patients and healthy controls. It is believed that Bifidobacterium and Lactobacillus in the gut may have a beneficial effect on the body's response to stress and may reduce the possibility to development of depressive disorders. In a study conducted to compare the amount of these bacteria in patients with MDD and healthy controls, it was observed that the numbers of Bifidobacterium and Lactobacillus were significantly lower in the patient group. In addition, in studies on the intestinal microbiota in MDD, higher levels of Bacteroidetes, Proteobacteria, Actinobacteria, Enterobacteriaceae were found, while Firmicutes and Faecalibacterium levels were observed to decrease. Although there are case reports in the literature showing that manic attacks regress following treatment targeting the gut-brain axis, it is suggested that differences in microbiota between individuals may be much more related to features of bipolar disorder such as sleep and stress response. However, the differences between the results of the studies prevent to reach definite conclusions about the relationship between the differences in the microbiota and psychiatric disorders. Given that most of the studies were conducted in a small sample size and in a cross-sectional design, there is a need for well-designed longitudinal studies with larger sample sizes that consider confounding factors.

Keywords: Microbiota, Mood disorders, The Microbiota-Gut-Brain Axis

References

1. Borre YE, O'Keeffe GW, Clarke G, Stanton C, Dinan TG, Cryan. JF. Microbiota and neurodevelopmental windows: implications for brain disorders. Trends Mol Med. 2014;20(9):509-18.
2. Hamdani N, Boukouaci W, Hallouche MR, Charron D, Krishnamoorthy R, Leboyer M, et al. Resolution of a manic episode treated with activated charcoal: evidence for a brain gut axis in bipolar disorder. Aust N Z J Psychiatry. 2015;39(12):1221-3.

3. Aizawa E, Tsuji H, Asahara T, Takahashi T, Teraishi T, Yoshida S, et al. Possible association of Bifidobacterium, and Lactobacillus, in the gut microbiota of patients with major depressive disorder. J Affect Disord. 2016;202:254-7.
4. Jiang H, Ling Z, Zhang Y, Mao H, Ma Z, Yin Y, et al. Altered fecal microbiota composition in patients with major depressive disorder. Brain Behav Immun. 2015;48:186-94.
5. Margolis KG, Cryan JF, Mayer EA. The Microbiota-Gut-Brain Axis: From Motility to Mood. Gastroenterology. 2021 Apr;160(5):1486-1501. doi: 10.1053/j.gastro.2020.10.066.

[Abstract:0423] [Others]
Emotional and Social Impairment in Children with Cognitive Disengagement Syndrome

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Cognitive Disengagement Syndrome (CDS), formerly known as Sluggish Cognitive Tempo, is described as a cluster of symptoms including mental fogginess or confusion, excessive daydreaming, slow thinking/behavior, sluggishness, seeming to be lost in thoughts, and apathy. Initially, CDS was thought to be a subclassification of the inattention dominant type of Attention Deficit and Hyperactivity Disorder (ADHD), but in recent years, CDS is considered a separate disorder, even though it coexists with ADHD. The common view of the researchers is that children with CDS tend to have a more anxious temperament, are introverted, shy-looking, unable to express their needs, and have limitations in catching social cues.
The most difficulties in individuals with CDS are in the field of academic and social relationships. In studies, CDS symptoms were associated with social withdrawal, isolation, loneliness, and low initiative in social relationships. Also, CDS was strongly related to low self-esteem in school-aged children. Poorer social competence and experiences of peer victimization were linked to higher CDS symptoms perceiving low school support among adolescents with or without ADHD.
To date, many studies have linked CDS with internalizing disorders. A meta-analysis showed that CDS was positively associated with internalizing symptoms (CDS explained 23-30% of the variance in depression) and negatively related to externalizing symptoms such as Oppositional Defiant Disorder, Conduct Disorders, hyperactivity, and impulsivity. Researchers discovered a correlation between CDS and features of rumination, suicidal ideation, and emotion dysregulation in 302 young adolescents with and without ADHD. When controlling for ADHD inattentive symptoms, CDS was uniquely linked with higher self-reported internalizing symptoms and suicide ideation.
In this presentation, the emotional and social problems experienced by children and adolescents with CDS will be discussed.

Keywords: Cognitive Disengagement Syndrome, Children, Emotional and social problems

[Abstract:0424] [Sleep disorders]
Forensic aspect of sleep disorders

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Scientests investigate the effects of sleep disorders to social and human life that has been one of the areas of concern. Researchers revealed individual and social harms of sleep disorders (insomnia, hypersomnia, obstructive sleep apnea syndrome, parasomnias, etc) with many scientific datas. They have raised the question of how to prevent these losses.While individual losses of sleep disorders may be prevented with persons clarification and early detection in these areas, social losses can be minimized with legal regulations. Social cosequences can result of individual impacts. Sleep disorders can be caused excessive daytime sleepiness, fatigue, cognitive slowing that impairs performance, can result social harms as trafic and industrial injury.Recent years legislative amendments have been done to limit the social causes of sleep disorders. This arrangements can clarify the presence of sleep disorder with crime or caused damage that persons have criminal responsibility or not, application of driver license, industrial injury and review the person's disabbility rate and military service.

Keywords: Sleep disorders, law, industrial injury, driver license, forensic psychiatry

[Abstract:0425] [Mood disorders]
Reward Deficit and Anhedonia in Mood Disorders

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Traditionally, anhedonia has been conventionally defined as "the inability to feel pleasure." Nevertheless, recent advancements in neuroscientific research pertaining to reward processing have prompted a collective endeavor to comprehend, redefine, and conceptualize anhedonia. Clinical observations of anhedonia symptomatology do not lend substantial support to the presence of notable distinctions among major depressive disorder (MDD), bipolar disorder I and II (during depressive episodes). However, within a clinical sample of 291 patients diagnosed with unipolar depression, bipolar disorder I, and bipolar disorder II, it was observed that individuals with unipolar depression exhibited a greater severity of anhedonia. Despite the clinical resemblance of depressive episodes in bipolar disorder and major depressive disorder, the underlying etiology of anhedonia may diverge significantly.

Significantly, whether anhedonia represents a transient state or an enduring trait in individuals with mood disorders remains undetermined. Among inpatients with MDD, anhedonia scores exhibited stability over a span of seven months, even though 75% of the patients displayed signs of recovery. Furthermore, evidence indicates dysregulation in the trait behavioral activation system (BAS), which signifies the inclination toward desired stimuli or activities, serves as a vulnerability factor in bipolar disorder.

Numerous studies on the neurocircuitry of reward processing have consistently identified key brain regions, including the ventral tegmental area, caudate nucleus, putamen, ventral striatum, with a particular focus on the nucleus accumbens, prefrontal cortex, orbitofrontal cortex, and the amygdala. These areas are crucial in the processing of rewards. However, it is challenging to formulate a definitive model of reward circuit dysfunction in depression or bipolar disorder due to the multifaceted nature of reward and the heterogeneity within mood disorders. Dopamine, the most extensively studied neurotransmitter in preclinical research, has garnered some clinical support for its role in modulating various aspects of anhedonia, including anticipation, motivation, effort, and learning. Additionally, serotonin, epinephrine, opioids, glutamate, gamma-aminobutyric acid, and acetylcholine may modulate consummatory pleasure and motivation.

Polygenic risk scores represent a promising approach for predicting an individual's susceptibility to developing a specific disorder based on their genetic makeup. Consequently, they may prove valuable in clinical practice for forecasting which individuals are at the highest risk of experiencing anhedonia. Intriguingly, polygenic risk for anhedonia (the cumulative measure of genetic risk) has exhibited associations with diminished white matter integrity in the brain, reduced overall grey matter volume, and diminished volumes of brain regions linked to reward and pleasure processing.

Traditional antidepressants, such as selective serotonin reuptake inhibitors, have demonstrated limited efficacy in alleviating anhedonia, taking into account their potential to exacerbate anhedonia in certain individuals. Other treatments, such as agomelatine, vortioxetine, ketamine, and transcranial magnetic stimulation, may present as more effective options for addressing anhedonia.
In conclusion, a substantial body of evidence suggests that anhedonia is, at least to some extent, distinct from mood disorders. Consequently, it necessitates meticulous assessment and tailored intervention.

Keywords: Mood disorders, Anhedonia, Reward Deficit

References

1.Gao, K., Sweet, J., Su, M., & Calabrese, J. R. (2017). Depression severity and quality of life of qualified and unqualified patients with a mood disorder for a research study targeting anhedonia in a clinical sample. Asian Journal of Psychiatry, 27, 40-47.
2. Souery, D., Zaninotto, L., Calati, R., Linotte, S., Mendlewicz, J., Sentissi, O., & Serretti, A. (2012). Depression across mood disorders: review and analysis in a clinical sample. Comprehensive psychiatry, 53(1), 24-38.
3.Dempsey, R. C., Gooding, P. A., & Jones, S. H. (2017). A prospective study of bipolar disorder vulnerability in relation to behavioural activation, behavioural inhibition and dysregulation of the behavioural activation system. European Psychiatry, 44, 24-29.
4.Tejeda, H. A., & Bonci, A. (2019). Dynorphin/kappa-opioid receptor control of dopamine dynamics: Implications for negative affective states and psychiatric disorders. Brain research, 1713, 91-101.
5.Zhu, X., Ward, J., Cullen, B., Lyall, D. M., Strawbridge, R. J., Lyall, L. M., & Smith, D. J. (2021). Phenotypic and genetic associations between anhedonia and brain structure in UK Biobank. Translational psychiatry, 11(1), 395.

[Abstract:0426] [Psychosomatic medicine-Liaison psychiatry]
Psychiatric disorders in cancer

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Cancer causes various physical and psychosocial problems. In addition to its own effects, and side effects of its treatments, patients with cancer struggle with some other factors like the fear of death or disability, concerns about potential dependency or abandonment, and changes in the financial status. All these factors may affect both their, and their families psychological state through the process. Moreover, stigmatization that may be caused by cancer diagnosis could be one of the reasons of potential trauma.
Physical pain, fatigue, anxiety, and depression are common causes of distress in patients with cancer. It is reported that the prevalence of psychiatric disorders in cancer is 47% (1). The most common psychiatric comorbidities in patients with cancer are depressive episodes, anxiety disorders, and adjustment disorders. Patients with cancer also present with other psychiatric symptoms and disorders, including grief, insomnia, posttraumatic stress disorder, psychotic disorders, cognitive impairment, delirium and sexual dysfunction. Studies have found that psychological distress that patients experience can vary according to specific tumor types. For example, a history of breast cancer has been shown to be more related to anxiety and depression compared with lymphoma or genitourinary tumors (2). A higher incidence of both depression and delirium has been shown in inpatient studies (1).
Psychiatric comorbidities cause a decrease in quality of life and a worsening of the prognosis in patients with cancer (3). Psychiatric disorders have been linked with mortality among these patients (4). Additionally, the prevalence of completed suicide is elevated in these patients (5). However, psychiatric disorders are underdiagnosed and undertreated among patients with cancer (1). The optimal treatment of psychiatric symptoms in patients with cancer includes both psychotherapy and medications. There is still a need for further studies in the field of psycho-oncology to improve our understanding of the mechanisms of psychiatric symptoms and to enhance treatment strategies.

References

1. Derogatis LR, Morrow GR, Fetting J, Penman D, Piasetsky S, Schmale AM, Henrichs M, Carnicke CL Jr. The prevalence of psychiatric disorders among cancer patients. JAMA. 1983;249(6):751-757.
2. Muzzatti B, Giovannini L, Romito F, Cormio C, Barberio D, Abate V, De Falco F, Annunziata MA. Psychological health in long-term cancer survivorship: an Italian survey on depression and anxiety. Psychol Health Med 2017;22:12-18
3. Sotelo JL, Musselman D, Nemeroff C. The biology of depression in cancer and the relationship between depression and cancer progression. Int Rev Psychiatry. 2014;26(1):16-30.
4. Hamer M, Chida Y, Molloy GJ. Psychological distress and cancer mortality. J Psychosom Res. 2009;66(3):255-258.
5. Robson A, Scrutton F, Wilkinson L, MacLeod F. The risk of suicide in cancer patients: a review of the literature. Psychooncology. 2010;19(12):1250-1258.

Keywords: Cancer, Psychiatric comorbidity, Psycho-oncology

[Abstract:0427] [Autism Spectrum Disorders]

Autism Spectrum Disorder, Gut-brain axis and Microbiota

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Autism Spectrum Disorder (ASD) is one of the childhood neurodevelopmental disorders accompanied by social and communicative limitations, stereotyped and repetitive behaviors, and limited interests. The prevalence of autism has been reported as 2.24%. Many genetic, environmental and epigenetic causes are blamed in the etiology of autism, which can be seen with a wide spectrum of clinical manifestations and comorbid conditions. Studies have shown that the majority of individuals with ASD are accompanied by gastrointestinal symptoms such as constipation (85%),bloating, and indigestion. These symptoms may be related to the degree of deficiencies in social relations and the severity of stereotypical behaviors, hyperactivity, and aggression. As a result, these comorbid conditions and the relationship between some psychiatric diseases and gastrointestinal system brought up the investigation of the Gut-brain axis in the etiology of autism.
The Gut-brain axis, a dynamic structure, including many tissues and organs such as the brain, secretory glands, intestine, immune cells, bacterial flora, is in a bidirectional interaction. It is suggested that the mutual signal and information exchange occurring along this axis affects the chemical structure and behavior of the brain. Factors such as exposure to various environmental substances and toxins affect the microorganisms living in the intestines. As a result of exposure to these factors, changes in the number, structure and content of the gut microbiota cause the deterioration of the healthy balance and the formation of 'dysbiosis', also known as abnormal intestinal bacterial flora.

This results in local and systemic effects such as changes in the production of short-chain fatty acids, increase in intestinal permeability and decrease in colonic resistance. It is thought that as a result of increased intestinal permeability, bacterial products pass into the systemic and local circulation, resulting in a low level of endotoxemia or the change in short-chain fatty acid production by affecting lipid and glucose metabolism, leading to diseases such as obesity, atherosclerosis, and diabetes. Also, molecular similarity can be observed between the products of the intestinal microbiota and the cellular structures. It has been reported that dysbiosis may lead to the production of some autoantibodies against these bacterial structures and the formation of autoimmune diseases by negatively affecting healthy cells due to the similarity. Researchers have reported that the gut microbiota content and distribution of children with ASD differs compared to healthy children. One of the mechanisms underlying this relationship between autism and the gut microbiota is the Leaky Gut hypothesis. Magistris et al. reported that patients with autism and their relatives had a higher rate of intestinal wall permeability (36.7%) compared to the control. In addition, it has been suggested that this increased permeability causes toxins and bacterial products to pass into the blood and create a high antigen load in the gastrointestinal tract, and that lymphocytes and pro-inflammatory cytokines reach the blood-brain barrier by passing into the systemic circulation and affect brain functions.
In the presentation, the relationship between autism and gut brain axis will be explained in the light of current literature.

Keywords: Autism, gut brain axis, microbiota

References

1. Coury DL, Ashwood P, Fasano A, Fuchs G, Geraghty M, Kaul A, et al. Gastrointestinal conditions in children with autism spectrum disorder: developing a research agenda. Pediatrics. 2012;130(Supplement 2):S160-S8.
2. Santocchi E, Guiducci L, Fulceri F, Billeci L, Buzzigoli E, Apicella F, et al. Gut to brain interaction in Autism Spectrum Disorders: a randomized controlled trial on the role of probiotics on clinical, biochemical and neurophysiological parameters. BMC psychiatry. 2016;16(1):183.
3. Grenham S, Clarke G, Cryan JF, Dinan TG. Brain–gut–microbe communication in health and disease. Frontiers in physiology. 2011;2:94.
4. de Magistris L, Familiari V, Pascotto A, Sapone A, Frolli A, Iardino P, et al. Alterations of the intestinal barrier in patients with autism spectrum disorders and in their first-degree relatives. Journal of pediatric gastroenterology and nutrition. 2010;51(4):418-24.
5. Mulle JG, Sharp WG, Cubells JF. The gut microbiome: a new frontier in autism research. Current psychiatry reports. 2013;15(2):337.

[Abstract:0433] [Sleep disorders]
Sleep-Wake Disorders in Children and Adolescents

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Sleep, which is one of the basic elements in terms of development and health in children; has many important functions such as brain development, behavior regulation and learning. Also sleep; is a factor that positively affects the mother-child and child-environment interaction and contributes to the mental and physical development of the child. Sleep needs differ according to age groups.
Due to the interaction of the sleep-wake cycle with biological maturation and developmental factors, the incidence of sleep disorders in children is quite high. While various sleep problems are defined in 25-50% of pre-school children, it is reported that 20-30% of school-age children and adolescents have problems that can be called sleep disorders. Media products consisting of technological electronic devices are important elements that make life easier, but the use of these products at the level of addiction in childhood threatens healthy sleep (1).
Different sleep disorders are seen in children in every age group. The most common sleep problems include sleep initiation and maintenance problems, frequent night awakenings, excessive daytime sleepiness, sleep talking, delayed sleep phase disorder, sleepwalking, snoring and sleep apnea (1, 2).
Neurogenetic syndromes can be classified as 'rare diseases', but co-occurring sleep disorders are not uncommon. In recent years, an increasing number of studies have targeted sleep problems in individuals with neurogenetic syndrome. Sleep disorders are common in well-known genetic syndromes such as Down syndrome, Fragile X syndrome Angelman syndrome, Cri du Chat syndrome, Prader-Willi syndrome, Smith-Magenis syndrome and Cornelia de Lange syndrome (3).
Diagnosis and treatment of sleep disorder can be quite complex for clinicians. Sleep disorders can be due to many different causes. Sleep disorders can cause irritability, daytime sleepiness, attention and memory problems, learning and mental illnesses, especially in long-term sleep disorders. (4)

Success in the treatment of sleep disorders depends on a thorough understanding of the pathophysiology of pediatric sleep disorders. In the treatment of sleep disorders in children, the age of the patient and the existing sleep problem, as well as the presence of other accompanying diseases, are also important in the treatment plan. The first step in diagnosing sleep disorders is a detailed history and physical examination, and some sleep disorders can even be diagnosed without the need for additional testing. Further investigation may be considered when some specific diseases are suspected. Sleep hygiene is necessary to ensure sleep quality in order to protect physical and mental health. Attention should be paid to the side effects that may occur in the use of drugs. The aim of the treatment of sleep disorders in children should be the selection of drugs that do not disturb the natural sleep structure and the use of the lowest effective dose (1, 2, 4).

Keywords: Adolescent, Children, Diagnosis, Sleep disorder, Treatment

References

1. Meltzer LJ, Mindell JA. Sleep and sleep disorders in children and adolescents. Psychiatric Clinics. 2006;29(4):1059-76.
2. CANPOLAT M, Hüseyin P, GÜMÜŞ H. Çocuklarda Uyku Bozuklukları: Akademisyen Kitabevi; 2023.
3. Dosier LBM, Vaughn BV, Fan Z. Sleep disorders in childhood neurogenetic disorders. Children. 2017;4(9):82.
4. Stores G. Practitioner review: assessment and treatment of sleep disorders in children and adolescents. Journal of Child Psychology and Psychiatry. 1996;37(8):907-25.

[Abstract:0434] [Others]

Leveraging Neuroimaging and Deep Learning to Resolve How Psychiatric Morbidity and Sex influence the Risk for Neurological Disease

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BACKGROUND AND AIM: The interaction of neurological disease risk with psychiatric disease is poorly understood. Evidence suggests that psychiatric diseases can involve accelerated aging of the brain, as revealed by magnetic resonance imaging (MRI). In individual with mental health morbidities, the brain's biological age (BA) can reflect structural changes related to either accelerated neuroanatomic senescence or abnormal development. Additionally, recent evidence suggests that risk for neurological diseases such as Alzheimer's disease (AD) may be influenced by developmental factors, which may include psychiatric disease burden in childhood or adolescence. Furthermore, persons with genetic variants such as APOE- ε4 have higher risk of neurodegenerative conditions such as Alzheimer's disease (AD).
METHODS: We developed convolutional neural networks (CNNs) to estimate BA from MRI. We used two CNNs to assess the reproducibility of sex differences in brain aging. Model A (Yin et al., 2023) is a CNN regression model whose inputs are T1-weighted MRI scans and outputs are estimated BAs and saliency maps. This model is trained on males and females separately. Model B is sex-agnostic (i.e., trained on both males and females). Both models were trained on T1-weighted MRIs from 5,851 CN individuals (3,142 females) aged 22 to 95 years, sampled from ADNI (N = 510), HCP-A (N = 508), HCP-YA (N = 1,112), and UK Biobank (UKBB, N = 3,721). 80% of the data were used for training, and 20% for validation. Interpretable brain maps of regional brain aging were derived for each sex and disease/condition. To quantified the relationship between SNPs and brain MRI intensities, we computed the mutual information (MI), a measure of reciprocal dependence between two variables, for (A) 22 AD-related SNPs, including the APOE-ε4 allele and (B) brain MRI intensities across the cortex.
RESULTS: Variations across CNN models were minor; saliency maps were consistent across implementations. Significant group differences identify brain regions that are at higher risk for accelerated aging. Results confirm prior findings that psychiatric comorbidity can modify AD risk. MI maps reveal the impacts of SNPs on brain structure across participants and sexes, with distinct patterns of influence as a function of genetic variants. The APOE-ε4 allele exhibits the highest MI of all SNPs in the medial parietal lobe. The ε4 SNP exerts higher influence on the left occipital lobe and postcentral gyrus compared to the right hemisphere. These structures are responsible for visual perception and proprioception, respectively. Other structures identified are responsible for memory recall and sensory perception, which are impaired in AD and can be affected by chronic anxiety and other psychiatric symptoms. These findings, which are sex-specific, corroborate reports that AD patients with mental health conditions experience greater reduction of peripheral vision and greater lack of spatial awareness as they age.

CONCLUSIONS: Our CNN saliency maps reveal how brain aging varies with psychiatric disease. Because accelerated brain aging is a risk factor for AD, such maps help to reveal how psychiatric disease may contribute to AD risk. Additionally, our approach provides insight into genetic influences on brain structures whose functions are linked to both AD and psychiatric symptoms.

Keywords: aging, deep learning, genetics, neuroimaging, neurology, psychiatry

[Abstract:0444] [Trauma, stress and related disorders]
Possession, Trauma, Dissociation Relationship

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Exposure to the traumatic event can cause to various of psychological symptoms. Literatures have shown that individuals who have experienced a traumatic event are more likely to dissociate than individuals who have not. Also, it was found that possession has been frequently reported among individuals with trauma-related dissociative disorders. However, an important point here is that possesion experiences are not always associated with psychopathology. Possesion experiences can also be detected as a healthy individuals as a cultural sign with religious meaning. When psychiatric interviews with these patients, it is necessary to have both the knowledge of the cultural/religious facts in which they live and the clinical analysis based on trauma knowledge.

Keywords: dissociation, possesion, trauma

References

1. Sar V., Alioglu F., Akyüz G. (2014). Experiences of Possession and Paranormal Phenomena Among Women in the General Population: Are They Related to Traumatic Stress and Dissociation?. Journal of Trauma & Dissociation, 15(3), 303-318.
2. Ventriglio A., Bonfitto I., Ricci F., Cuoco F. & Bhavsar V. (2018). Delusion, possession and religion. Nordic Journal of Psychiatry, 1-3.
3. Gershuny B. (1999). Relations among psychological trauma, dissociative phenomena, and trauma-related distress: A review and integration. Clinical Psychology Review, 19(5), 631-657.

[Abstract:0446] [Others]
Non-psychotherapeutic approaches for the treatment of erectile disorder

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Erectile disorder (ED) refers to the inability to achieve or maintain an erection that is adequate for sexual satisfaction. The causes are typically categorized as organic and psychological, though sociocultural and relational factors also play a role.
When taking medical histories from patients experiencing ED, it is important to thoroughly inquire about potential organic contributors to the condition, including factors such as medication usage, neurological disorders, metabolic issues, vascular diseases, and substance/alcohol abuse. Erectile dysfunction not attributed to organic causes is termed psychogenic or non-organic and is related to the effects of adrenaline/noradrenaline (mediated by the sympathetic nervous system) [1].
The process of achieving an erection involves the coordination of psychological, neurological, and vascular elements. Psychological factors significantly impact the ability to attain and sustain an erection. Approximately 40% of ED cases are attributed to psychogenic causes, with higher prevalence among young adults. Although there are identifiable clinical characteristics and diagnostic methods for distinguishing between psychogenic and organic causes of ED, these etiological factors frequently interact [2].
Primary treatment for psychogenic ED involves psychotherapies including components such as reducing anxiety, cognitive-behavioral interventions, increased sexual stimulation, addressing relationship issues, and enhancing communication within couples. Additionally, non-psychological treatments were also researched.
Lifestyle modifications, physical exercise, smoking cessation, and dietary changes are fundamental recommendations for all ED patients, irrespective of the underlying cause. Different forms of exercise (aerobic, resistance training, group activities, aquatic exercise, etc.) can enhance erectile function through various mechanisms.

Phosphodiesterase-5 inhibitors (PDE-5i) play a significant role in the pharmacological treatment of non-organic ED. These can be used as monotherapy or in combination with psychological interventions. Studies show better treatment outcomes when PDE-5i is combined with psychological interventions compared to monotherapy [3].
In addition to these treatment methods, research has explored the use of electro-acupuncture [4], intracavernosal injection therapy [5] and the combination of PDE-5 inhibitors and cabergoline [6] for treatment of psychogenic erectile dysfunction.

Keywords: Erectile dysfunction, treatment strategies, phosphodiesterase-5 inhibitors

References

[1] Mirone V, Fusco F, Cirillo L, Napolitano L. Erectile Dysfunction: From Pathophysiology to Clinical Assessment. Pract Clin Androl. Published online 2023:25-33. doi:10.1007/978-3-031-11701-5_3
[2] Pakpahan C, Agustinus A, Darmadi D. Comprehensive intersystemic assessment approach to relieve psychogenic erectile dysfunction: A review. Open Access Maced J Med Sci. 2021;9:189-196. doi:10.3889/oamjms.2021.6116
[3] Atallah S, Haydar A, Jabbour T, Kfoury P, Sader G. The effectiveness of psychological interventions alone, or in combination with phosphodiesterase-5 inhibitors, for the treatment of erectile dysfunction:A systematic review. Arab J Urol. 2021;19(3):310-322. doi:10.1080/2090598X.2021.1926763
[4] Wang H, Yan B, Zhao M, Guo J, Zhang J. Efficacy of acupuncture in the treatment of psychogenic erectile dysfunction: study protocol for a randomized control trial. J Mens health. 2023;19(7):31-38. doi:10.22514/jomh.2023.055
[5] Lidawi G, Asali M, Majdoub M, Rub R. Short-term intracavernous self-injection treatment of psychogenic erectile dysfunction secondary to sexual performance anxiety in unconsummated marriages. Int J Impot Res. 2022;34(5):407-410. doi:10.1038/s41443-020-00399-z
[6] Mohammad EJ, Jaffal WN, Abbas KM. The efficacy of using cabergoline in psychogenic erectile dysfunction treatment (a local study). Syst Rev Pharm. 2020;11(3):702-704. doi:10.31838/srp.2020.3.95

[Abstract:0447] [Attention deficit hyperactivity disorder (ADHD)]
Attention Deficit Hyperactivity Disorder and Microbiota

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Attention-deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder that has a global prevalence of 7.2% in children under the age of 18. The etiology of attention deficit hyperactivity disorder (ADHD) is multifaceted, with various factors implicated in its development. These factors include genetic predisposition, environmental influences, and perinatal damage. The current research emphasis in the study of risk factors for attention deficit hyperactivity disorder (ADHD) is centered on investigating alterations and imbalances in the composition of gut microbiota, and the possible implications this may have on the development and progression of neurodevelopmental disorders. The role of the intestinal microbiota, as a component of the "gut-brain axis," in the bidirectional communication between the intestines and the central nervous system involves the vagus nerve and the immune system. Recent research has revealed that the gut microbiome plays a role in fundamental neurogenerative processes such as blood-brain barrier formation, myelin formation, and neurogenesis (Dinan & Cryan, 2016). For example, a research investigation utilizing animal models has postulated that the gut microbiota of individuals with and without ADHD, when transplanted into mice, may potentially induce distinct modifications in brain function and/or structure. Mice that were colonized with microbiota associated with ADHD exhibited notable deviations in their brain, including diminished structural integrity in both white and gray matter regions. In addition, the MRI findings indicated a reduction in the resting-state connection between the right motor and visual cortices (Tengeler et al., 2020).
Lately, the manipulation of the microbiome by probiotic modulations and fecal transplant has led to the exploration of various bacteria for targeted therapeutic interventions. Accordingly, a systematic review of gut microbiota and ADHD revealed that a total of 49 bacterium taxa were found to be significantly different between ADHD and healthy controls. Nevertheless, the findings of each study exhibited considerable variability, making it difficult to identify the specific bacterial taxa that displayed the most significant differences in individuals with ADHD (Sukmajaya et al., 2021). For instance, a study conducted by Aarts et al. identified several possible markers for ADHD, including the Clostridiales order, Rikenellaceae and Porphyromonadaceae families, as well as the Bifidobacterium and Eggerthella genera. Furthermore, the research conducted by Jiang et al. and Wan et al. observed a decrease in the abundance of Genus Faecalibacterium. However, it is worth noting that previous studies have indicated that the quantity of this particular genus does not show a significant correlation with the Conners Parent Rating Scale (CPRS) score or the hyperactivity index score (Jiang et al., 2018). All in all, the findings across many research exhibit considerable heterogeneity, with each study revealing specific taxonomic differences between individuals with ADHD and those in the healthy control groups. Hence, a limited consensus was reached on the bacterial taxa that had the most significant correlation with

ADHD.
There are multiple factors that contribute to the variation in study outcomes, one of which is the typically limited size of research groups. Additionally, the study groups showed variation in terms of participant age, including individuals from infancy to adulthood. It is important to note that the composition of the gut microbiome and bacterial diversity are subject to dynamic changes throughout the lifespan. The study studies were done in multiple nations and encompassed a range of climate zones. It is widely recognized that many cultures have distinct nutritional trends.
Regarding administering the probiotic strain Lactobacillus rhamnosus GG, a single study has demonstrated its potential positive impact on cognitive function and ADHD symptoms. Another study has provided evidence of a beneficial effect on the health-related quality of life, as reported by children and adolescents (Rianda et al., 2019). However, upon a careful examination of the available material, it is evident that the existing body of evidence is inadequate to support the recommendation of probiotic supplementation as a treatment for ADHD. To obtain a more precise evaluation of the subject matter, additional research encompasses an extended duration and a larger cohort of participants. This research should incorporate diverse assessment techniques, including in vivo observation, actigraphy, and digital methodologies. It is recommended that the studies be undertaken in various age cohorts, with a minimum duration of several months.

Keywords: ADHD, microbiota, gut brain axis

References

1.Dinan, T. G., & Cryan, J. F. (2016). Mood by microbe: towards clinical translation. Genome medicine, 8, 1-3.
2.Jiang, H.-y., Zhou, Y.-y., Zhou, G.-l., Li, Y.-c., Yuan, J., Li, X.-h., & Ruan, B. (2018). Gut microbiota profiles in treatment-naïve children with attention deficit hyperactivity disorder. Behavioural Brain Research, 347, 408-413.
3.Rianda, D., Agustina, R., Setiawan, E., & Manikam, N. (2019). Effect of probiotic supplementation on cognitive function in children and adolescents: A systematic review of randomised trials. Beneficial microbes, 10(8), 873-882.
4.Sukmajaya, A. C., Lusida, M. I., & Setiawati, Y. (2021). Systematic review of gut microbiota and attention-deficit hyperactivity disorder (ADHD). Annals of general psychiatry, 20(1), 1-12.
5.Tengeler, A. C., Dam, S. A., Wiesmann, M., Naaijen, J., Van Bodegom, M., Belzer, C., Dederen, P. J., Verweij, V., Franke, B., & Kozicz, T. (2020). Gut microbiota from persons with attention-deficit/hyperactivity disorder affects the brain in mice. Microbiome, 8, 1-14.

[Abstract:0448] [Attention deficit hyperactivity disorder (ADHD)]
Guanfacine for the Treatment of Attention Deficit Hyperactivity Disorder

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OBJECTIVE: Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder that leads to severe psychiatric, academic, and social problems if not untreated due to deficits in executive function, such as working memory, inhibitory control, attention, planning, and reward processing. Stimulant medications have been demonstrated to be effective in treating ADHD. Due to significant side effects, 15% of stimulant drug users discontinued treatment. Clinical studies indicate an inadequate response rate of 20-35% in ADHD patients receiving initial stimulant treatment. In an effort to find alternatives to stimulants for treating ADHD, researchers have developed non-stimulant medications such as atomoxetine, clonidine, and guanfacine. A study was conducted to evaluate the effectiveness of long-acting guanfacine in treating ADHD in children, and the results showed a significant improvement in hyperactivity and attention deficit. Guanfacine is approved for use in children and adolescents as a monotherapy or adjunct to stimulant therapy in the US and Canada. In Europe, it is approved for treating children and adolescents (6 to 17 years) with ADHD when stimulants are unsuitable, not tolerated, or ineffective. Non-stimulants like atomoxetine, clonidine, and guanfacine treat ADHD, but have smaller effect sizes than stimulants. Beyond their effects on core ADHD symptomatology, guanfacine has been shown to be associated with improved functional impairment and quality of life. Recent meta-analyses have compared the safety and efficacy of stimulants and non-stimulants, and findings indicate that guanfacine is more effective than Atomoxetine. However, Guanfacine has a higher incidence of all-cause withdrawals. Additionally, combining Guanfacine with stimulants has been found to be effective in individuals who have an inadequate response to stimulants. Furthermore, these drugs may help alleviate each other's side effects.
METHODS: We conducted a search of PubMed, ClinicalKey, and MEDLINE databases. Keywords used included, in varying combinations: guanfacine, mechanism of action, psychiatry, children and adolescents, and attention deficit hyperactivity disorder.
RESULTS: We explain how Guanfacine treats ADHD, comparing its effectiveness and differences from other treatments.
CONCLUSIONS: This research presents an overview of guanfacine's role in ADHD and its mode of action.
This study offers insights into the use of guanfacine in treating ADHD. While there have been studies on guanfacine and its efficacy in treating ADHD, further research is required to understand its potential fully. In addition, interventions

to increase medication compliance in children and adolescents with ADHD must be developed and scientifically evaluated.

Keywords: Attention Deficit Hyperactivity Disorder, Guanfacine, Treatment, Child, Adolescent, Non-Stimulants

[Abstract:0449] [Schizophrenia and other psychotic disorders]
Possession, Trauma, Dissociation Treatment

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Possession, traditionally defined as the takeover of an individual's mind or body by external forces, entities, or spirits, manifests through profound alterations in consciousness, behavior, or identity. Across different cultural contexts, possession may be construed as a divine association or the malevolent influence of spirits. However, contemporary clinical psychology increasingly recognizes possession-like phenomena as manifestations of dissociative symptoms, particularly in regions where spiritual beliefs are less prevalent.
Trauma, on the other hand, encompasses the emotional responses stemming from distressing events, which can have enduring psychological consequences. Traumatic experiences range from physical and emotional abuse to accidents, undermining an individual's sense of safety. If left unaddressed, trauma can give rise to chronic stress, anxiety, depression, and a spectrum of psychiatric disorders, significantly impacting an individual's quality of life.
Dissociation, often regarded as a protective mechanism activated in response to trauma, entails a disconnection between different facets of an individual's experience, including thoughts, memories, or the sense of self. In extreme cases, dissociation can culminate in disorders like Dissociative Identity Disorder (DID), where individuals adopt multiple identities as a coping strategy to distance themselves from distressing experiences.
Emerging evidence indicates that what certain cultures classify as "possession" may be more accurately understood as trauma-induced dissociation in specific contexts. This revelation blurs the demarcations between spiritual, cultural, and psychological perspectives.
A holistic perspective is imperative to effectively address instances of possession, trauma, or profound dissociation. Culturally sensitive approaches, acknowledging the profound significance of possession beliefs for individuals, stand as a cornerstone of therapeutic success. Integrating evidence-based therapeutic interventions, such as Cognitive Behavioral Therapy (CBT), Eye Movement Desensitization and Reprocessing (EMDR), and trauma-focused therapies, with spiritual practices and community healing rituals provides a comprehensive and synergistic approach to treatment.
In conclusion, the intricate tapestry of possession, trauma, and dissociation necessitates a nuanced and multidimensional approach to assessment and intervention. Professionals who synergize cultural, spiritual, and clinical expertise are better equipped to meet the diverse needs of individuals hailing from varied cultural backgrounds and lived experiences.

Keywords: possession, trauma, dissociation, treatment

References

1. Van Duijl, M., Nijenhuis, E., Komproe, I. H., Gernaat, H. B., & De Jong, J. T. (2010). Dissociative symptoms and reported trauma among patients with spirit possession and matched healthy controls in Uganda. Culture, Medicine, and Psychiatry, 34, 380-400.
2. Herman, J. L. (1992). Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. Journal of traumatic stress, 5(3), 377-391.
3. Dell, P. F. (2010). 15 The Phenomena of Pathological Dissociation. Dissociation and the dissociative disorders: DSM-V and beyond, 225.
4. Hinton, D. E., & Lewis-Fernández, R. (2011). The cross-cultural validity of posttraumatic stress disorder: Implications for DSM-5. Depression and anxiety, 28(9), 783-801.
5. Bhavsar, V., Ventriglio, A., & Bhugra, D. (2016). Dissociative trance and spirit possession: Challenges for cultures in transition. Psychiatry and clinical neurosciences, 70(12), 551-559.

[Abstract:0450] [Schizophrenia and other psychotic disorders]

Family education and support in patients with schizophrenia in the perinatal period: '' The role and importance of the family in the healing process''

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In addition to being a natural process in a woman's life, pregnancy is a period in which difficulties can be experienced in important psychological, social and biological areas. The perinatal period can be complex and difficult, especially in women with severe mental illness.
Schizophrenia is a chronic and serious mental disorder that affects approximately 20 million people worldwide, and just under half of them are women. Women with schizophrenia either already have or will have children. Studies have shown that female patients with schizophrenia have an increased incidence of unplanned, unwanted pregnancies and abortions, are exposed to more violence during pregnancy, and cannot take care of their children and meet their needs. Schizophrenia has a significant negative impact on both patients and their families. Living with and caring for an individual with a severe psychiatric disorder such as schizophrenia; It brings with it various difficulties in terms of physical, social, economic and emotional aspects. Families face these difficulties at every stage of the disease. In our country, there are not enough services and education opportunities to cope with these difficulties mostly experienced by families. For this reason, families can be left alone and the burden of care increases even more. In addition, it is thought that only drug treatments are insufficient in reducing the symptoms of schizophrenia and that various psychosocial treatments to be applied in addition to drug treatments are beneficial in the medium and long term. In schizophrenia, especially the approach of families towards the disease; It is very important for the recovery of patients, increasing their quality of life, decreasing their stigma, and ensuring their participation in society. This is also important in the perinatal period. For this reason, psychoeducation should be given to families beforehand if there is a planned pregnancy or during the perinatal period if there is an unplanned pregnancy. It is important to cooperate with the family in this process.
In this presentation; The importance of family education and support in schizophrenia patients in the perinatal period will be mentioned.

Keywords: Schizophrenia, Pregnancy, Perinatal period, Family support

[Abstract:0452] [Addiction Psychiatry]
Dementıa and sleep-wake dısorders

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Dementia is a neuropsychiatric disorder that develops as a result of decrease in cognitive and intellectual functions without a change in consciousness. It is characterised by impaired memory, learning, language, problem solving, calculation, reading, writing, orientation, perception, attention, abstraction and judgement. Although there are various types according to the etiology, the most common is Alzheimer's type Dementia (ATD) (1).
It is frequently seen in individuals over 65 years of age. However, the incidence increases with elderly age. While the incidence is 5 % in people aged 65-75 years, this rate increases to 10 % in people over 75 years and to 30 % in people over 80 years. It is estimated that there are approximately 50 million people with dementia worldwide. However, this rate is expected to increase even more in the coming years (2).
Dementia is not biological ageing. It is a degenerative disease in which deterioration in cognitive functions is at the forefront. Due to the progressive nature of the disease, the process worsens over time and makes the person unable to perform daily activities.
This results in a range of problems, including the need for care and a variety of health problems (1).
One of these problems is insomnia. Sleep disorders (sleep apnoea, sleep hygiene problems, restless leg syndrome) are common in patients with dementia. Studies have reported that approximately 40% of these patients have sleep disorders. Circadian rhythm and neuroendocrine changes that deteriorate with age predispose to sleep disorders. In dementia patients with sleep disorders, symptoms such as difficulty falling asleep or maintaining sleep, sleep disturbances, sleepwalking at night and excessive daytime sleepiness are common. These symptoms worsen as the stage of the disease increases (3).
Studies have shown that sleep disorders in patients diagnosed with dementia are associated with decreased cognitive functioning, lower functionality, increased mortality, increased behavioural problems, increased hospitalisation and increased caregiver depression. Therefore, it is very important to recognise the sleep disorders seen in these patients and to manage their treatment in the best way for the wellbeing of both patients and their relatives (4).
In conclusion, the recognition and effective treatment of sleep disorders in patients with dementia is critical to improve the quality of life of both patients and their relatives.

Keywords: Alzheimer's Disease, Cognitive Impairment, Dementia, Sleep Disorders

References
1) Matsuda S, Yoshimura H. Personal identification systems for persons with dementia: a systematic review. Psychogeriatrics. 2021 Sep;21(5):832-838. doi: 10.1111/psyg.12752.
2) 2023 Alzheimer's disease facts and figures. Alzheimers Dement. 2023 Apr;19(4):1598-1695. doi: 10.1002/alz.13016.
3) Blackman J, Swirski M, Clynes J, Harding S, Leng Y, Coulthard E. Pharmacological and non-pharmacological interventions to enhance sleep in mild cognitive impairment and mild Alzheimer's disease: A systematic review. J Sleep Res. 2021 Aug;30(4):e13229. doi: 10.1111/jsr.13229.
4) Porter VR, Buxton WG, Avidan AY. Sleep, Cognition and Dementia. Curr Psychiatry Rep. 2015 Dec;17(12):97. doi: 10.1007/s11920-015-0631-8.

[Abstract:0459] [Trauma, stress and related disorders]
Understanding PTSD in the Wake of Earthquakes

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In recent years, catastrophic earthquakes have not only shattered infrastructures but have deeply impacted the psychological landscape of their survivors. The Feb. 6, 2023 quake in Turkey and Syria, with a magnitude 7.8 killed more than 20,000 people. The presentation outlines the common PTSD symptoms earthquake survivors often exhibit, such as reliving the traumatic event, heightened startle response, and persistent avoidance of reminders. Recent reviews show that nearly 1 in 4 earthquake survivors are diagnosed as having PTSD. Special attention is given to the unique challenges posed by the aftermath of earthquakes, including displacement, loss of loved ones, and the constant threat of aftershocks. Additionally, early intervention and culturally sensitive therapeutic approaches are emphasized, aiming to provide effective relief and support to the affected individuals, with a special focus on children. Early manifestations of earthquake exposure can encompass lingering psychological distress, recurrent trauma flashbacks, and adaptive challenges, surfacing long after the event's immediate aftermath. Given the high prevalence of PTSD the local government should plan effective psychological interventions for earthquake survivors. Through comprehending the nuanced relation between earthquakes and PTSD, we aim to inform value of comprehensive post-disaster support.

References
1.Burback, L., Brémault-Phillips, S., Nijdam, M. J., McFarlane, A., & Vermetten, E. (2023). Treatment of Posttraumatic Stress Disorder: A State-of-the-art Review. Curr. Neuropharmacol.
2.Nijdam, M. J., Vermetten, E., & McFarlane, A. C. (2023). Toward staging differentiation for posttraumatic stress disorder treatment. Acta Psychiatrica Scandinavica, 147(1), 65-80.
3.Saito, T., van der Does, F. H., Nagamine, M., van der Wee, N. J., Shigemura, J., Yamamoto, T., Vermetten, E & Giltay, E. J. (2022). Risk and resilience in trajectories of post-traumatic stress symptoms among first responders after the 2011 Great East Japan Earthquake: 7-year prospective cohort study. The British Journal of Psychiatry, 221(5), 668-675.
4.Nagamine, M., Giltay, E. J., Shigemura, J., van der Wee, N. J., Yamamoto, T., Takahashi, Y., & Vermetten, E. (2020). Posttrauma Symptoms after the 2011 Great East Japan Earthquake: A 6-Year Prospective Cohort Study in 56 388 First Responders. Post-traumatic Stress Disorder.
5.Nagamine, M., Giltay, E. J., Shigemura, J., van der Wee, N. J., Yamamoto, T., Takahashi, Y., & Vermetten, E. (2020). Assessment of factors associated with long-term posttraumatic stress symptoms among 56 388 first responders after the 2011 Great East Japan Earthquake. JAMA network open, 3(9), e2018339-e2018339.

[Abstract:0461] [Anxiety disorders]
Anxiety Disorder and Microbiota

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Microbiota is an ecosystem that consists of a community of microorganisms located in the intestines of the human body. It is crucial for the response to the stress, brain functioning and balance of the organism that the nervous system, immune system, endocrine system, as well as the intestinal microbiota communicate synchronously together. Changes that may occur in the intestinal microbiota have been shown to cause significant changes in mood, cognition, behavior, and pain (1).
Chronic and excessive stress poses a risk of physical illness, as well as a risk of mental illness, such as anxiety disorder. A significant portion of the symptoms of anxiety and fear activates the energy metabolism, immune, endocrine and

intestinal nervous system to protect the organism from threat or escape through the activation of the HPA axis and the autonomic nervous system. It is stated that by disturbing the intestinal balance, it may increase the adhesion of microorganisms to the intestinal wall and cause to the disturbance of neuroimmunendocrine balance between microbiota and the body (2). In a study on Generalized Anxiety Disorder (GAD), when compared to healthy controls, it was found that the variety and number of microorganisms significantly decreased, short-chain fatty acid (SCFA) producing bacteria decreased, and bacteria such as Escherichia Shigella, Fusobacterium and Ruminococcus gnavus were found to be overproliferated in people with a diagnosis of GAD. This is essential in terms of showing the change of intestinal microbiota balance in GAD patients (3).
At the same time, in another study, it was observed that microorganism-free baby rats showed an intense HPA action response to stress. Colonization was achieved by giving the bifidobacteria species and this situation was reversed. This is substantial in terms of showing that stress exposure at an early age or at any age can change the composition of the organism to the microbiome, but this situation can be corrected with early intervention (4).
At the same time, it has been shown by various studies that the increase or colonization of pathogenic microorganisms can increase anxiety. In the intestinal infection caused by Campylobacter jejuni and Citrobacter rodentium, anxiety symptoms were revealed by neuronal activation and activation in the central and autonomic nervous system (5,6). In a study that conducted in rats, it was stated that Lachnospiraceae and Ruminococcaceae bacteria cause social anxiety and avoidance behavior (7). In human studies in which the relationship of anxiety disorder to microbiota has been investigated, it has also been determined that people with intense neurotic characteristics have different microbiota (8). In addition to the existing experimental and cross-sectional human studies of the intestinal microbiota, there is a need for larger-scale community-based studies on children and adolescents for the diagnosis and treatment of stress and anxiety disorders.

Keywords: Microbiota, anxiety disorder, stress, fear

References

1. Borre YE, O'Keeffe GW, Clarke G, Stanton C, Dinan TG, Cryan. JF. Microbiota and neurodevelopmental windows: implications for brain disorders. Trends Mol Med. 2014;20(9):509-18.
2. Aguilera M, Vergara P, Martínez V. Stress and antibiotics alter luminal and wall-adhered microbiota and enhance the local expression of visceral sensory-related systems in mice. Neurogastroenterol Motil. 2013;25:e515-29.
3. Jiang HY, Zhang X, Yu ZH, Zhang Z, Deng M, Zhao JH, Ruan B. Altered gut microbiota profile in patients with generalized anxiety disorder. J Psychiatr Res. 2018 Sep;104:130-136.
4. Sudo N, Chida Y, Aiba Y, Sonoda J, Oyama N, Yu X-N, et al. Postnatal microbial colonization programs the hypothalamic-pituitary-adrenal system for stress response in mice. J Physiol. 2004;558:263-75.
5. Goehler LE, Park SM, Opitz N, Lyte M, Gaykema RPA. Campylobacter jejuni infection increases anxiety-like behavior in the holeboard: possible anatomical substrates for viscerosensory modulation of exploratory behavior. Brain Behav Immun. 2008;22:354-66.
6. Lyte M, Li W, Opitz N, Gaykema RPA, Goehler LE. Induction of anxiety-like behavior in mice during the initial stages of infection with the agent of murine colonic hyperplasia Citrobacter rodentium. Physiol Behav. 2006;89:350-7.
7. Gacias M, Gaspari S, Santos P-MG, Tamburini S, Andrade M, Zhang F, et al. Microbiota-driven transcriptional changes in prefrontal cortex override genetic differences in social behavior. Elife. 2016 Apr 20;5:e13442. doi: 10.7554/eLife.13442. PMID: 27097105; PMCID: PMC4880443.
8. Kim H-N, Yun Y, Ryu S, Chang Y, Kwon M-J, Cho J, et al. Correlation between gut microbiota and personality in adults: A cross-sectional study. Brain Behav Immun. 2018;69: 374-85.

[Abstract:0464] [Sleep disorders]

The Impact of Sleep Disorders on Mood in Adults: Practical Application Suggestions and Treatment Examples

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The majority of individuals with mood disorders have disruptions in circadian rhythms and the sleep-wake cycle, which is considered the most important of these cycles. In fact, this disruption in sleep is included in the diagnostic criteria. In addition, these disturbances in sleep can also be seen in euthymic periods. This suggests that sleep disturbance continues not only before or during an episode but also during the euthymic period, and that the level of these disturbances is correlated with the severity of the attack. In addition, it is emphasized that ongoing sleep disturbances may be associated with rapid cycling, anxiety levels, substance abuse and suicide attempts.

Patients diagnosed with mood disorder have a more irregular social rhythm than healthy individuals. According to the social rhythm theory, life events cause changes in the rhythm of daily activities and initiate mood periods through biological changes such as sleep and melatonin secretion.
Insomnia, hypersomnia, circadian rhythm disorders, delayed sleep phase disorders are frequently seen in mood disorder. It is seen that they are not evaluated sufficiently in outpatient clinics and are often overlooked.Interest in the relationship between mood disorders and pharmacologic agents increased with the demonstration that mood stabilizers affect circadian rhythm. In subsequent studies, it has been reported that psychotropics may have an effect on sleep by mechanisms such as regulating suprachiasmatic nucleus activity, ensuring the harmony of sleep/wake cycle and biological rhythm, and changing the length of the circadian period. The main therapeutic effect of melatonin agonists is thought to be the reorganization of the circadian rhythm. Benzodiazepines, benzodiazepine receptor agonists, sedative antidepressants, sedative antipsychotics and melatonin receptor agonists are widely used in the treatment of insomnia in patients diagnosed with bipolar disorder. Chronotherapeutic approaches, interpersonal and social rhythm therapy, cognitive behavioral therapy for modified insomnia are other preferred and proven to be effective in sleep-wake disorders in mood disorder.

Although the negative effects of ongoing sleep problems on the occurrence, recurrence and clinical course of mood episodes are well known, it is reported that clinicians do not devote enough time to sleep problems in practical applications. In this session, the effects of sleep disorders on mood will be emphasized with a comprehensive review of the current literature, the relationship of these problems with clinical presentation and treatment approaches will be discussed.

Keywords: sleep disorders, mood disorder, chronotherapeutics

References :
[1] Tekdemır R, Selvi Y, Altinbas K et al. Decreased miR-15b-5p/miR-155-5p levels and increased miR-134-5p/miR-652-3p levels among BD patients under lithium treatment. J Affect Disord. 2022; 317: 6-14.
[2] Gıca S, Selvi Y. Şizofreni ve Bipolar Bozukluğun Tedavisinde Uyku Alanında Müdahaleler. Arch Neuropsychiatry. 2021;58.
[3] Freeman D, Sheaves B, Waite F, Harvey AG et al. Sleep disturbance and psychiatric disorders. Lancet Psychiatry 2020;7:628–637

[Abstract:0467] [Others]
Cognitive Disengagement Syndrome and Neuropsychological Functioning in Children and Adolescents

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Cognitive Disengagement Syndrome (CDS) is a new definition and has been used instead of Sluggish Cognitive Tempo. CDS is a cluster of symptoms such as hypoactivity, lethargy, absent-mindedness, apathy, lethargy, and concentration problems. While CDS was previously thought to be a subclassification of Attention Deficit Hyperactivity Disorder (ADHD), in which attention deficits predominate, CDS has recently been considered a separate disorder, although it co-occurs with ADHD. It is not yet included as a diagnostic group in DSM-5 and its diagnostic criteria are not clear.
Executive functions are mental abilities that provide high-level control of cognitive processes. These functions include the ability to plan, organize, monitor and execute complex tasks. Executive functions help individuals achieve goals, maintain attention, make decisions, and regulate behavior and are specifically governed by brain regions known as the frontal lobes. CDS is associated with neuropsychological factors.
In Barkley's research, it was found that CDS does not cause problems with executive functions as much as ADHD. In another meta-analysis study, it was shown that CDS causes problems in executive functions and mostly affects the emotion regulation part. However, a study found that CDS may be associated with cognitive flexibility and especially problems in directing attention, which may be related to orientation and vigilance rather than executive functions. The reason for these differences may be due to the lack of clear criteria for the disease. As can be seen, there is no clear opinion on this issue and more research is needed.
In this presentation, the problems of neuropsychological functions of children and adolescents with CDS will be discussed.

Keywords: Cognitive Disengagement Syndrome, Children, Adolescent, Neuropsychological Functioning

[Abstract:0474] [Others]
Evaluating the Psychometric Properties of RITA Based on "Risk Assessment"

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The Risk Assessment Questionnaire for Mental Illness (RITA) is a comprehensive computerized scale designed to screen and assess the risk of psychological problems in patients or clients without compromising the integrity of their overall well-being. It serves as a crucial tool for clinicians to ensure that no potential psychological issues are overlooked. The identified risks are evaluated by the clinician, providing an opportunity for further examination and assessment. While RITA primarily serves as a risk screening tool, it focuses on the most commonly encountered psychological disorders.

RITA consists of 21 sub-scales that identify various psychological issues. Each sub-scale has undergone its own validity and reliability testing. Some sub-scales, being standardized, did not require additional validity and reliability assessments. However, for the other sub-scales, validity and reliability have been established, and cutoff points have been determined. These have been compared to gold standard scales to assess their validity and reliability. A new study is currently being planned to further confirm the overall validity and reliability of RITA. This panel will also discuss the ongoing validity and reliability assessments.

Keywords: Psychometric Properties, Risk Assessment, RITA

[Abstract:0476] [Attention deficit hyperactivity disorder (ADHD)]
The Neurobiology of Sluggish Cognitive Tempo

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Sluggish Cognitive Tempo (SCT) is a cognitive-emotional style that is commonly described by five typical characteristics, which are “daydreaming”, “being confused”, “staring blankly”, “being sluggish” and “being unmotivated” [1, 2] Although SCT has never been included as a disorder in DSM-5 or other diagnostic systems, several lines of evidence also support the external validity of SCT as a clinically meaningful construct distinct from other DSM-5 disorders. A comprehensive meta-analysis found that SCT is associated with a range of important aspects of functional impairment, including higher rates of global impairment, social isolation and withdrawal, academic difficulty, and sleep disturbance [3]
Discovery of disease-specific biomarkers has proved particularly elusive in psychiatric disorders. A key reason for this is the heterogeneous nature of psychiatric disorders, with multiple subtypes and protean clinical manifestations, even in patients with the same diagnosis. There is a clear need for studies to reduce phenotypic heterogeneity. There are few etiological studies on SCT, which has been recognized in recent years and whose diagnostic criteria are not yet clear. Genetic, neurobiological and environmental factors play an important role in this disorder. In a study examining the genetic aspect of SCT, hereditary transmission was found to be moderately significant. In that study, it has been shown that although there are common genetic points between SCT and ADHD, these two different attention disorders have their own hereditary differences [4]. There are a few neuroimaging studies investigating SCT symptoms. In the first study, higher SCT symptoms were associated with hypoactivity in the left superior parietal lobe, while higher inattention symptoms were associated with altered activity in the supplementary motor area and thalamus on cognitive control-related functional magnetic resonance imaging (fMRI) [5] The second study found that subjects with SCT symptoms had increased frontal-lobe volume and less segregation in the two major networks (posterior cingulate cortex and dorsal frontal region) [6]. There was only one study which investigated the genetics of SCT. In that study it was investigated that if the prevalence of two variable-number tandem repeats (VNTRs) located within the 3′-untranslated region of the DAT1 gene and in exon 3 of the dopamine D4 receptor (DRD4) gene differ among four groups (31 subjects with SCT but no ADHD, 146 individuals with ADHD but no SCT, 67 subjects with SCT + ADHD, and 92 healthy controls). They found that 4R homozygosity for the DRD4 gene was most prevalent in the ADHD without SCT group. The SCT without ADHD group had the highest 7R allele frequency, differing significantly from the ADHD without SCT group. The 7R allele of DRD4 gene was found to be significantly more prevalent in SCT cases than in ADHD cases [7]. However, no study investigating the neuroinflammation of SCT could be found in the literature.

Keywords: sluggiah cognitive tempo, genetics, neuroimaging, neuroinflammaiton

References

1. Lee S, Burns GL, Snell J, McBurnett K. Validity of the sluggish cognitive tempo symptom dimension in children:

Sluggish cognitive tempo and adhd-inattention as distinct symptom dimensions. J Abnorm Child Psychol. 2013;42(1):7–19. doi: 10.1007/s10802-013-9714-3.
2. Penny AM, Waschbusch DA, Klein RM, Corkum P, Eskes G. Developing a measure of sluggish cognitive tempo for children: content validity, factor structure, and reliability. Psychol Assess. 2009;21:380–389. doi: 10.1037/a0016600.
3. Becker SP, Burns GL, Leopold DR, Olson RK, Willcutt EG. Differential impact of trait sluggish cognitive tempo and ADHD inattention in early childhood on adolescent functioning. J Child Psychol Psychiatry. 2018;59(10):1094-1104. doi:10.1111/jcpp.12946
4. Moruzzi S, Rijsdijk F, Battaglia M. A twin study of the relationships among inattention, hyperactivity/impulsivity and sluggish cognitive tempo problems. J Abnorm Child Psychol. 2014;42(1):63-75. doi:10.1007/s10802-013-9725-0
5. Fassbender C, Krafft CE, Schweitzer JB. Differentiating SCT and inattentive symptoms in ADHD using fMRI measures of cognitive control. Neuroimage Clin. 2015;8:390–7.
6. Camprodon-Rosanas E, Pujol J, Martinez-Vilavella G, Blanco-Hinojo L, Medrano-Martorell S, Batlle S, et al. Brain structure and function in school-aged children with sluggish cognitive tempo symptoms. J Am Acad Child Adolesc Psychiatry. 2019;58:256–66.
7. Bolat H, Ercan ES, Ünsel-Bolat G, et al. DRD4 genotyping may differentiate symptoms of attention-deficit/hyperactivity disorder and sluggish cognitive tempo. Braz J Psychiatry. 2020;42(6):630-637. doi:10.1590/1516-4446-2019-0630

[Abstract:0478] [Mood disorders]

Pregnancy Planning and Risk Management in Woman with Bipolar Disorder: Drug Reduction and Follow-up Strategies

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Bipolar disorder is a serious mental illness characterized by episodes of mania and depression. The disease often begins in the early 20s, and the risk of relapse increases during pregnancy and the postpartum period. Studies have found that the risk of relapse in patients who continue prophylactic pharmacotherapy (23%) is lower than in the group that does not use medication during pregnancy (64%) (1). There is limited data on the use of psychiatric medications during pregnancy. For this reason, during the management of pregnancy, case-specific situations should be evaluated, risk-benefit analyses should be made, and reached to a consensus. If possible, a single drug, minimum effective dose and one of the medications with the safest profile according to the latest evidence should be preferred. According to the available data; Valproic acid and carbamazepine should not be used due to the high risk of teratogenicity. Lithium, with a respectively lower risk of teratogenicity, should be preferred in patients with severe or suicidal episodes and in cases with a previous good response to lithium. Lamotrigine and most second-generation antipsychotics appear relatively safe. Among the second-generation APs, olanzapine, quetiapine and aripiprazole were found to be safer compared to risperidone, but more literature is required (2). The risk of congenital anomalies with benzodiazepines has not been determined in most recent studies, but it is desirable to avoid it during pregnancy, especially in the late gestational months. When antidepressants need to be used, it is recommended that the SSRI group be preferred since there is limited data on non-SSRI antidepressants, but other SSRIs than paroxetine seem safer according to our current literature information due to some data on the relationship between paroxetine and the increased risk of cardiovascular anomalies (3). ECT can be considered as a treatment option in the treatment of serious mood episodes.
All women of reproductive age diagnosed with bipolar disorder should be informed in advance about the increased risk of relapse of the disease during pregnancy and the possible effects on the fetus of the drugs used in treatment, and should be educated that pregnancy should be a planned process. Despite all this, it is known that approximately 40% of pregnancies are unplanned pregnancies. For this reason, the use of drugs such as valproic acid with proven teratogenic properties in young women with a diagnosis of bipolar disorder should be avoided, and agents that can be continued to be used during pregnancy should be considered in the foreground. During the entire pregnancy, patients should be followed by a psychiatrist, gynecologist and, if necessary, a perinatologist. The psychiatrist should monitor the patient closely in terms of mood symptoms and the level of drugs with a risk of toxicity should be monitored frequently. In all such planning, informed consent discussions and treatment recommendations should be documented.

Keywords: bipolar disorder, women, pregnant, abnormalities, congenital

References

1. Wesseloo R, Kamperman AM, Munk-Olsen T, et al.: Risk of postpartum relapse in bipolar disorder and postpartum psychosis: a systematic review and meta-analysis. Am J Psychiatry 2016; 173:117–127
2. Huybrechts KF, Hernández-Díaz S, Patorno E, Desai RJ, Mogun H, Dejene SZ, et al. Antipsychotic use in pregnancy and the risk for congenital malformations. JAMA Psychiatry. 2016;73:938–46.

3. Uguz F. Selective serotonin reuptake inhibitors and the risk of congenital anomalies: A systematic review of current meta-analyses. Expert Opin Drug Saf. 2020;19:1595–604.

[Abstract:0479] [Others]
Signs and Symptoms in Sluggish Cognitive Tempo

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Sluggish Cognitive Tempo (SCT) is a more recognized disorder in recent years, characterized by daytime drowsiness, lack of activity, daydreaming and lethargic appearance. There are no definitive and officially used diagnostic criteria for SCT. It is a disorder that is not yet included in the Diagnostic and Statistical Manual of Mental Disorders (DSM).
Symptoms such as daydreaming, troubles in staying awake, being muddy, staring with empty eyes, being his mind elsewhere, lethargic outlook, lack of activity, moving slowly, inability to answer questions appropriately, looking sleepy, apathetic view, getting lost in thoughts, slow performance of assigned duties and responsibilities, low effort in doing something are used to recognize SCT in clinical practice.
As a result of a meta-analysis, it was found that being sleepy-tired, daydreaming, slowness in cognitive functions, acting sluggishly, looking confused, looking around blankly, being reluctant while doing work were found to be significant symptoms for SCT. Daydreaming, staring and lethargic-drowsy appearance are the items most commonly associated with SCT. It was determined that the cases were collected especially in two different symptom groups. While the first group consisted of cases with daytime sleepiness and the feeling of being in a vacuum; the other group was shown to consist of slow-moving, hypoactivity cases. Although symptoms of low effort and reluctance to attempt a job were shown as a third group, these findings were thought to be more related to attention deficit and hyperactivity disorder.
The severity of symptoms in environments where SCT is seen may differ from each other. As a result of a study, a low-to-moderate relationship was found between family reporting scores and teacher scores at school. It has been shown that daydreaming and lethargic appearance are valid for both parent and teacher forms for SCT.
In the clinical evaluation process, if attention problems, daydreaming and slowness are described in a case, a detailed inquiry should be made in terms of SCT. If real mental capacity and mental capacity during the interview are different, we sholud think the diagnosis of SCT. Problems in social relations and a state of slowness suggesting late perception are among the conditions that we should suspect in terms of SCT diagnosis. However, if slowness and absent-mindedness are defined rather than hyperactivity, especially in cases with attention problems, SCT should be considered.
Progression to diagnosis can be facilitated by getting support from informal but statistically significant symptom clusters. It is statistically significant for the diagnosis that 3 or more of the 12 symptoms in the Barkley Child Attention Questionnaire are marked as "often" or "very often" by the caregivers or a well-known teacher and cause impairment in functionality. It should be kept in mind among the preliminary diagnoses at this age, as it may lead to deterioration in academic and social functioning, especially during adolescence.

Keywords: Clinical presentation, sluggish cognitive tempo, symptoms

[Abstract:0480] [Trauma, stress and related disorders]
Pharmacotherapy After Trauma

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Drug treatment in the acute phase of psychological trauma should be used in rare cases. It should be used if the symptoms of acute stress response are severe, if there is a delirium picture, if the person has an ongoing psychiatric disorder and is receiving treatment for this disorder, if there is an alcohol or substance use disorder and a related withdrawal picture. The use of psychotropic drugs in the treatment of acute stress response is a common practice, but it is not appropriate except in rare cases. Psychological first aid should be considered first. It should be considered if the symptoms are very severe, accompanied by severe anxiety, psychomotor agitation, dissociative symptoms, psychotic symptoms and insomnia. Drug use should be temporary and short-term. It is not appropriate to use benzoiazepines (BDZs). If agitation, severe dissociative symptoms and self-harming behavior are present, low dose atypical antipsychotics can be used for a short time. If insomnia is severe, non-BDZ hypnotics (trazodone, mirtazapine, low dose antipsychotics etc.) can be used. The use of psychotropic medication for acute stress disorder or symptoms of acute stress response without disorder is not preventive for posttraumatic stress disorder (PTSD). In studies conducted in the first three months after trauma, many drugs (dexamethasone, escitalopram, imipramine, chloral

hydrate, etc.) were not superior to placebo in preventing the development of PTSD. Glucocorticoids may reduce the fear response but do not prevent the development of PTSD. If there is physical injury, it is important to prevent pain. Agents used for pain control (such as morphine) may also have a preventive effect on the development of PTSD. In case of delirium, anticholinergic agents, BDZs and unnecessary opioids should be avoided. BDZs should only be used in delirium due to alcohol or substance withdrawal. Thiamine replacement should be made for Wernicke's encephalopathy and Korsakof syndrome. Antipsychotics should be used at the lowest possible dose. Atypical antipsychotics should be preferred in patients with injuries, muscle breakdown, dehydration and hypo/hyperthermia. Sleep hygiene should be ensured. Pay attention to withdrawal symptoms. Symptoms may range in severity from mild symptoms to coma. Alcohol or substance use should be questioned and necessary precautions should be taken. Replacement therapy with BDZs should be performed by determining the daily dose, and in case of alcohol withdrawal, nutritional support and thiamine replacement should be performed and continued for at least five days.

Keywords: Trauma, acute stress response, posttraumatic stress disorder

[Abstract:0481] [Mood disorders]

Parenting Skills and Stress Management for Children of Bipolar Mothers: Guidance, Education and Self-Care

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Bipolar affective disorder (BAD) is a mental disorder characterized by changes in mood, sleep, and behavior and may affect functional areas such as work, family, and social relationships. Since BAD affects areas such as communication, impulse control, and motivation, parenting becomes more difficult for these individuals (1).
Most of the basic attachment behaviors develop in the first 9 months of life. The full formation of this process takes 2-3 years. Attachment styles change very little after they are determined as secure or insecure. The first two years of life, which is the most important period for attachment, may be negatively affected by maternal psychiatric illness. Attachment is a reciprocal process between mother and infant. The continuity of the mother-child relationship forms the basis of subsequent experiences. A healthy relationship with parents plays a decisive role in young and adult mental health (2).
The first year after birth is a period in which the risk of relapse increases for women with bipolar disorder. Therefore, children are likely to be exposed to mothers with mood symptoms during the first 12 months (3). For this reason, the child's secure attachment process may be affected.
Mothers diagnosed with bipolar disorder may exhibit inconsistencies due to mood fluctuations. This may affect children's growing up in a safe environment and developing a healthy attachment style. Affective fluctuations, lack of energy and motivation, difficulty in anger control, irritability, increased energy, sleep irregularity, and inability to spare time for self-care that mothers may experience during episodes may negatively affect mother-child interactions and affect children's mental health. In patients with BAD, problems may arise in the protection and care of the child, as well as in the parent-child relationship, due to recurrent disease periods and deterioration of psychosocial functionality due to residual symptoms (2).
Difficulties related to the nature of BAD, stigma, increased stress and risk of relapse may affect the parenting experience of mothers with bipolar disorder. Parents in a euthymic state may develop feelings of guilt, inadequacy, and hypersensitivity towards their children (2). However, these people can improve their parenting skills and manage stress through various methods. Mothers with bipolar disorder can cope with these challenges and parent effectively with an appropriate and solid support network.

Keywords: Bipolar disorder, mother, children, parenting

References

1. Jones S, Calam R, Sanders M, Diggle PJ, Dempsey R, Sadhnani V. A pilot web based positive parenting intervention to help bipolar parents to improve perceived parenting skills and child outcomes. Behavioural and Cognitive Psychotherapy 2014;42(3):283-296.
2. Erkan M, Gencoglan S, Akguc L, Ozatalay E, Fettahoglu EC. Attachment styles and psychopathology among adolescent children of parents with bipolar disorder. Medical science monitor: international medical journal of experimental and clinical research 2015;21,1083.
3. Anke TM, Slinning K, Moe V, Brunborg C, Siqveland TS, Skjelstad DV. Bipolar offspring and mothers: interactional challenges at infant age 3 and 12 months—a developmental pathway to enhanced risk?. International journal of bipolar disorders 2020;8,1-16.

[Abstract:0482] [Personality disorders]

The Neurobiological Dimension of Narcissism

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Narcissism, a complex personality trait characterized by grandiosity, self-centeredness, and a lack of empathy, has intrigued researchers across various disciplines. Neuroimaging studies have revealed structural and functional alterations in specific brain regions associated with narcissistic traits. The prefrontal cortex, especially the medial prefrontal cortex, has been implicated in self-related processing and self-enhancement characteristic of narcissism (1). Dysfunction in the anterior insula, a region involved in empathic processing, may underlie the lack of empathy often observed in narcissistic individuals (2). Additionally, aberrant activation in the striatum and amygdala may contribute to the reward-seeking and attention-seeking behaviors seen in narcissism (3).Genetic factors have been suggested to play a role in the development of narcissistic traits. Twin and family studies have provided evidence for a heritable component to narcissism (4). Recent research has identified potential candidate genes associated with narcissism, such as those involved in dopamine regulation and oxytocin signaling (5). These genetic factors may influence neural pathways underlying self-esteem, social cognition, and emotional regulation.Emerging evidence suggests distinct neurobiological profiles for vulnerable narcissism (characterized by hypersensitivity and defensiveness) and grandiose narcissism (characterized by arrogance and dominance). Functional connectivity studies have highlighted differences in the default mode network and salience network between these subtypes, reflecting variations in self-referential processing and emotional regulation (6). Genetic predispositions and early environmental factors may contribute to the development of these distinct narcissistic traits.Understanding the neurobiological basis of narcissism opens the door to potential therapeutic interventions. Neuroplasticity, the brain's ability to reorganize and adapt, suggests that interventions aimed at modifying neural circuitry could impact narcissistic behaviors. Cognitive-behavioral therapies, mindfulness-based practices, and social skills training may target specific neural networks implicated in narcissism (7).The neurobiological dimension of narcissism offers a novel perspective on understanding the mechanisms underlying this complex personality trait. Insights from neuroimaging, genetics, and psychophysiology provide valuable information about brain regions, genetic factors, and neural pathways involved in narcissistic traits.

References:

1.Meyer J, et al. (2013) Ego- and Self-Esteem Threatening Pictures Activate Different Parts of the Prefrontal Cortex. Personality and Social Psychology Bulletin, 39(12), 1565-1577.
2.Ritter K, et al. (2018) Empathy deficits in narcissistic personality disorder: A functional magnetic resonance imaging study. Psychological Medicine, 48(4), 680-687.
3.Chester DS, et al. (2016) The Motivational Bases of Narcissism: Implications for the Quest for Status. Journal of Personality and Social Psychology, 110(6), 1007-1038.
4.Lasko EN, et al. (2019) A Behavioral Genetic Analysis of Narcissism in Emerging Adulthood. Journal of Personality, 87(2), 339-352.
5.Pabst S, et al. (2020) Oxytocin receptor gene methylation: converging multilevel evidence for a role in social anxiety. Neuropsychopharmacology, 45(6), 1024-1033.
6.Rogers CR, et al. (2022) Resting-state functional connectivity and dissociable pathways of narcissism: vulnerable and grandiose facets. Social Cognitive and Affective Neuroscience, 17(1), 69-81.
7.Roepke AM, et al. (2013) Mindfulness-Based Interventions: A Comprehensive Review of Conceptualizations, Goals, Mechanisms, and Effects. Psychotherapy and Psychosomatics, 82(6), 332-348.

Keywords: Narcissism, grandiose, vulnerable, neurobiology

[Abstract:0483] [Addiction Psychiatry]
Long-term treatment and challenges

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Long-term Treatments And Challanges
Long-term inpatient treatment is a form of treatment given to individuals who cannot continue their outpatient treatment, cannot stay away from substance use, and have problems related to chronic substance users. This treatment aims to help the individuals to keep physically distance themselves from substance use and to focus on the recovery process in a non-substance environment. The main purpose of long-term inpatient rehabilitation is to move individuals away from their social environment and to change their thoughts and behavior patterns, to identify areas that they are struggling to cope with, to develop new skills, and to restore their lives. There are also problems encountered during the

long-term inpatient treatment process. Individuals stay away from their families and loved ones.This separation can be emotionally compelling and affects family relationships. During long-term hospitalisation, there may be fluctuations in motivation, motivation may decrease from time to time, and faith in healing may be shaken.A highly professional team and a special environment are required and the cost of it is quite high.Medical problems that arise during treatment increase the cost. During long-term inpatient treatment, patients may lose their social circle and experience a feeling of loneliness. Hospitalisation is optional, long-term hospitalizations can be challenging in relationships between patients because they may tempt each other with substance abuse. As time passes in these institutions, the treatment team is negatively affected by the behavior of the patients, leading to professional burnoutDespite all the difficulties, long-term inpatient institutions are crucial to provide a safe environment for a person to start a new life.

Keywords: long-term, treatment, substance, challenges

[Abstract:0488] [Trauma, stress and related disorders]
Why do adolescents engage in self-harm? Self-injury in the perspective of sensory profile

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Self-mutilation is defined as deliberately damaging one's body in a way that disrupts its tissue, without conscious suicidal intent (Favazza, 1996). It may or may not be a symptom of a psychiatric disorder, and it may or may not be the cause of one of the psychiatric disorders. Non-suicidal self-injury (NSSI) was found in 17.2% of adolescents, 13.4% of university-aged youth, and 5.5% of adults over 25 years of age (Swannell et al., 2014). Similarly, in a study conducted with 3rd, 6th, and 9th grade students, the frequency of NSSI was found to be approximately 8% (Barrocas et al., 2012). Although many clinicians and researchers continue to view NSSI solely as a symptom of borderline personality disorder, recent studies are changing this perception. Studies have shown that SIB is associated with a range of internalizing, externalizing, and personality disorders and can occur in the absence of psychiatric diagnoses (Glenn & Klonsky, 2013; Nock et al., 2006; Selby et al., 2012). However, self-injurious behavior (SIB) is dangerous and has a strong association with suicidal behavior. Prospective studies show that NSSI is a risk factor for suicidal behavior rather than a simple correlation (Asarnow et al., 2011; Cox et al., 2012; Guan et al., 2012; Whitlock et al., 2013; Wilkinson et al., 2011). Furthermore, a recent meta-analysis found that both NSI and previous suicide attempts predicted future suicide attempts approximately equally well (Ribeiro et al., 2016). 55-85% of those who self-injured have attempted at least one suicide. Self-mutilation is common with borderline personality disorder and the suicide rate in these people is 5-10% (Stanley et al., 2001).
While those who self-harm have more negative temperament characteristics, their emotional regulation is impaired, and their levels of depression and anxiety are high (Skegg, 2005). Self-injury can be thought of as an act done by a person to control his or her own emotions. It is thought that an individual injures himself for reasons such as stopping bad feelings, feeling numb or empty, getting rid of anxiety, anger, and self-alienation (Nock & Prinstein, 2004). People who self-harm often have difficulty expressing emotions such as anger and anxiety (Simpson, 2001).
Emotion dysregulation (often referred to as emotional dysregulation) is a broad concept that includes emotion reactivity and emotion regulation. Emotion dysregulation is included in most existing models explaining NSSI (Chapman et al., 2006; Hasking et al., 2017; Selby & Joiner Jr., 2009). It is thought that people with NSSI experience high levels of negative affect and overreact to emotional stimuli. The inability to regulate emotion is often seen as the primary factor for the onset of SIB (Klonsky, 2007), and individuals with SIB score higher on the Difficulties in Emotion Regulation Scale (Franklin et al., 2011, 2013). Whitlock et al. (2011) reported that 81% of 431 university students who reported SIB reported that SIB served as an emotion regulation function (Whitlock et al., 2011). Although we recognize that people may not always be fully aware of the motivations behind their behavior (Nisbett & Wilson, 1977), retrospective self-report and ecological momentary assessment studies further support the idea that mood improves after SIB occurs (Armey et al., 2011; Klonsky, 2007; Nock, 2009)
A comprehensive way to organize the mechanisms underlying NSSI is to use the neurorelational framework (NRF), an interdisciplinary organizational system that combines neurodevelopmental and behavioral information into four systems: regulatory, sensory, fitness, and executive (Lillas & Turnbull, 2009). This framework also explores how these four factors interact with each other. NRF integrates research in neurodevelopment, trauma and the brain, arousal states, sensory integration, occupational science, behavior, socio-emotional development, memory, executive functions, and various developmental models. The sensory system, which includes sensory processing and modulation, provides the brain with "raw data" from the external world (relationships, external stimuli) and the internal environment (body, internal stimuli). Sensory processing is associated with the accuracy of information transmitted from different cortical regions of the brain. Part of sensory processing includes discrimination, which is the sensitivity of individuals to perceive stimuli. Sensory modulation is associated with activation and inhibition and helps decide which stimuli to receive and what to filter out. Disturbances in sensory modulation can result in over-response and under-response and can cause adverse effects across domains, especially when habituation, ability to adapt to stimuli, and sensitivity, ability to respond to

stimuli become unbalanced. A deeper understanding of the sensory system with other systems in the NIQ can potentially offer new perspectives on seemingly complex and illogical actions such as SIB (Christensen, 2012). In a review article, Moro (2007) suggested that although there are not enough studies yet, SIBT gives positive responses to sensory integration therapy (Moro, 2007). This supports the view that there are underlying sensory problems.
Keywords: self injury, sensory profile, adolescent suicide

References

1.Armey, M. F., Crowther, J. H., & Miller, I. W. (2011). Changes in ecological momentary as-sessment reported affect associated with episodes of nonsuicidal self-injury. Behavior therapy, 42(4), 579-588.
2.Asarnow, J. R., Porta, G., Spirito, A., Emslie, G., Clarke, G., Wagner, K. D., Vitiello, B., Kel-ler, M., Birmaher, B., & McCracken, J. (2011). Suicide attempts and nonsuicidal self-injury in the treatment of resistant depression in adolescents: Findings from the TORDIA study. Journal of the American Academy of Child & Adolescent Psychiatry, 50(8), 772-781.
3.Barrocas, A. L., Hankin, B. L., Young, J. F., & Abela, J. R. (2012). Rates of nonsuicidal self-injury in youth: Age, sex, and behavioral methods in a community sample. Pediatrics, 130(1), 39-45.
4.Chapman, A. L., Gratz, K. L., & Brown, M. Z. (2006). Solving the puzzle of deliberate self-harm: The experiential avoidance model. Behaviour research and therapy, 44(3), 371-394.
5.Christensen, J. S. (2012). Early adolescent non-suicidal self-injury and sensory preference dif-ferences: An Exploratory Study. The Claremont Graduate University.
6.Cox, L. J., Stanley, B. H., Melhem, N. M., Oquendo, M. A., Birmaher, B., Burke, A., Kolko, D. J., Zelazny, J. M., Mann, J. J., & Porta, G. (2012). A longitudinal study of nonsuicidal self-injury in offspring at high risk for mood disorder. The Journal of Clinical Psychiatry, 73(6), 10597.
7.Favazza, A. R. (1996). Bodies under siege: Self-mutilation and body modification in culture and psychiatry. Jhu Press.
Franklin, J. C., Hessel, E. T., & Prinstein, M. J. (2011). Clarifying the role of pain tolerance in suicidal capability. Psychiatry Research, 189(3), 362-367.
8.Franklin, J. C., Puzia, M. E., Lee, K. M., Lee, G. E., Hanna, E. K., Spring, V. L., & Prinstein, M. J. (2013). The nature of pain offset relief in nonsuicidal self-injury: A laboratory study. Cli-nical Psychological Science, 1(2), 110-119.
9.Glenn, C. R., & Klonsky, E. D. (2013). Nonsuicidal self-injury disorder: An empirical investi-gation in adolescent psychiatric patients. Journal of clinical child & adolescent Psychology, 42(4), 496-507.
10.Guan, K., Fox, K. R., & Prinstein, M. J. (2012). Nonsuicidal self-injury as a time-invariant pre-dictor of adolescent suicide ideation and attempts in a diverse community sample. Journal of consulting and clinical psychology, 80(5), 842.
11.Hasking, P., Whitlock, J., Voon, D., & Rose, A. (2017). A cognitive-emotional model of NSSI: Using emotion regulation and cognitive processes to explain why people self-injure. Cognition and Emotion, 31(8), 1543-1556.
12.Klonsky, E. D. (2007). Non-suicidal self-injury: An introduction. Journal of clinical psycho-logy, 63(11), 1039-1043.
13.Lillas, C., & Turnbull, J. (2009). Infant/child mental health, early intervention, and relations-hip-based therapies: A neurorelational framework for interdisciplinary practice. WW Norton & Co.
14.Moro, C. D. (2007). A Comprehensive Literature Review Defining Self-Mutilation and Occu-pational Therapy Intervention Approaches: Dialectical Behavior Therapy and Sensory Integra-tion. Occupational Therapy in Mental Health, 23(1), 55-67. https://doi.org/10.1300/J004v23n01_04
15.Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on men-tal processes. Psychological review, 84(3), 231.
16.Nock, M. K. (2009). Why do people hurt themselves? New insights into the nature and functi-ons of self-injury. Current directions in psychological science, 18(2), 78-83.
17.Nock, M. K., Joiner Jr, T. E., Gordon, K. H., Lloyd-Richardson, E., & Prinstein, M. J. (2006). Non-suicidal self-injury among adolescents: Diagnostic correlates and relation to suicide at-tempts. Psychiatry research, 144(1), 65-72.
18..Nock, M. K., & Prinstein, M. J. (2004). A functional approach to the assessment of self-mutilative behavior. Journal of consulting and clinical psychology, 72(5), 885.
19.Ribeiro, J. D., Franklin, J. C., Fox, K. R., Bentley, K. H., Kleiman, E. M., Chang, B. P., & Nock, M. K. (2016). Self-injurious thoughts and behaviors as risk factors for future suicide ideation, attempts, and death: A meta-analysis of longitudinal studies. Psychological medicine, 46(2), 225-236.
20.Selby, E. A., Bender, T. W., Gordon, K. H., Nock, M. K., & Joiner Jr, T. E. (2012). Non-suicidal self-injury (NSSI) disorder: A preliminary study. Personality Disorders: Theory, Re-search, and Treatment, 3(2), 167.
21.Selby, E. A., & Joiner Jr, T. E. (2009). Cascades of emotion: The emergence of borderline per-sonality disorder from emotional and behavioral dysregulation. Review of general psychology, 13(3), 219-229.
22.Simpson, C. (2001). Self-mutilation. ERIC Clearinghouse on Counseling and Student Services Greensboro, NC.
23.Skegg, K. (2005). Self-harm. The Lancet, 366(9495), 1471-1483.
24.Stanley, B., Gameroff, M. J., Michalsen, V., & Mann, J. J. (2001). Are suicide attempters who self-mutilate a unique population? American Journal of Psychiatry, 158(3), 427-432.

25.Swannell, S. V., Martin, G. E., Page, A., Hasking, P., & St John, N. J. (2014). Prevalence of nonsuicidal self-injury in nonclinical samples: Systematic review, meta-analysis and meta-regression. Suicide and Life-Threatening Behavior, 44(3), 273-303.
26.Whitlock, J., Muehlenkamp, J., Eckenrode, J., Purington, A., Abrams, G. B., Barreira, P., & Kress, V. (2013). Nonsuicidal self-injury as a gateway to suicide in young adults. Journal of adolescent health, 52(4), 486-492.
27.Whitlock, J., Muehlenkamp, J., Purington, A., Eckenrode, J., Barreira, P., Baral Abrams, G., Marchell, T., Kress, V., Girard, K., & Chin, C. (2011). Nonsuicidal self-injury in a college po-pulation: General trends and sex differences. Journal of American College Health, 59(8), 691-698.
28.Wilkinson, P., Kelvin, R., Roberts, C., Dubicka, B., & Goodyer, I. (2011). Clinical and psycho-social predictors of suicide attempts and nonsuicidal self-injury in the Adolescent Depression Antidepressants and Psychotherapy Trial (ADAPT). American journal of psychiatry, 168(5), 495-501.

[Abstract:0493] [Others]
Preventing the Manipulation of Diagnostic Tests by Clients/Patients

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The Risk Assessment Questionnaire for Mental Illness (RITA) is a computerized scale that assesses the likelihood of psychological problems in a patient or client, provides information to clinicians about the need for further investigation in the field of mental health, and identifies factors that may influence psychological issues. Given the potential for manipulation or inaccurate responses in self-rating scales of this kind, various security measures have been developed.

Firstly, a separate scale has been created to assess social desirability, recognizing the susceptibility of such self-rating scales to social desirability bias. Secondly, the time taken to complete the scale is monitored after its administration. Thirdly, control questions are included to detect contradictory responses. Lastly, individuals are asked about any behaviors indicating an attempt to deceive the scale. During the panel discussion, the reliability of the scale will be examined under these four categories.

Keywords: Manipulation, RITA, Diagnostic Tests

[Abstract:0498] [Others]
Worldwide Computerized Diagnostic Systems, Strengths and Weaknesses: Expectations for the Future

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Mental health disorders are becoming increasingly common. This situation also increases the economic burden worldwide. However, the challenges in providing adequate mental health care are complex and multifaceted. For example, the inadequacy of mental health professionals and the short time they can spare for interviews create difficulties in evaluating patients. On the other hand, low perception of the need for treatment or fears of stigmatization negatively affects evaluation and treatment applications. Therefore, innovative, cost-effective, and highly scalable solutions are needed for the evaluation, diagnosis, and management of mental health disorders in the future. To this end, digital technologies for psychiatry can offer attractive additions or alternatives to traditional mental health services. Clinical decision support tools can range from simple digitalized versions of existing pen-and-paper mental health screening tools to more complex question-answer-based digital solutions for psychiatry such as adaptive questionnaires. These tools can be used on patients' personal devices (for example, via a website) so that private and convenient mental health care can be provided to the individual from the comfort of their home. Digitalized assessment tools can help standardize assessments and reduce errors in data recording. It also increases the capacity to collect confidential information and ensures time-efficient evaluation. While participants can do the assessment at their own pace, the amount of time clinicians spend in the assessment process can be reduced. In addition, the data from the participants can be planned, stored, retrieved instantly, and used for subsequent comparisons.

Keywords: Digital mental health, digital questionnaire, mental health screening, psychiatry

References

1) Leung, SF, French, P., Chui, C., & Arthur, D. (2007). Computerized mental health assessment in integrative health clinics: A cross-sectional study using structured interview. International journal of mental health nursing, 16 (6), 441-446.

2) Martin-Key, NA, Spadaro, B., Funnell, E., Barker, EJ, Schei, TS, Tomasik, J., & Bahn, S. (2022). The current state and validity of digital assessment tools for psychiatry: systematic review. JMIR Mental Health, 9 (3), e32824.

[Abstract:0502] [Psychosomatic medicine-Liaison psychiatry]

Psychoeducation on Diagnosis and Treatment Process: Phenomenology, Predisposing, Eliciting and Sustaining Factors

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Functional neurological disorder (FND) is a complex neuropsychiatric disorder involving an inter-action of psychological factors, including personality traits and illness beliefs about illness, neu-rophysiologic changes, and environmental factors.

Treatment of FND is generally starts with the recognition of the diagnosis and the nature of the disorder. The most useful method that can be used by a neurologist and /or the psychiatrist can do for their FND patients to make them believe and understand their diagnoses and the potential re-versibility of their symptoms is to show them their symptoms their physical signs (positive neuro-logical findings) in the right way. Validation oft he patients symtoms as signs of a neuropsychiatric ilness Validating the patient's symptoms will help the patient to feel that they are accepted and embraced by the medical system, and will increase their belief in the diagnosis and treatment and enhance their compliance with the treatment. The validation process will hep the patient to under-stand that FND is not a diagnosis of exclusion to be made when everything else has been ruled out. Eventually it becomes possible for the patient to stop seeking alternative medical opinions regar-ding their diagnosis and treatment.

The cognitive (individual's beliefs about motor or sensory functioning can override sensory in-puts) and neurobiological models (alterations in the sensorimotor, attention, limbic, and self-referential/awareness networks) proposed in the literature to explain the physiopathology of the disease should also be explained to the patient.

Another important step in the treatment of FND patients is to give information abaut the probable reasons whey they developed these symptoms at this particular time. The predisposing, precipita-ting and sustaining factors described in the literature regarding functional motor symptoms should be revealed through a detailed psychological and neurological history taken from the patient.
After psychoeducation about the nature of the disease, its pyhysiopathology, diagnostic process, the patient can establish a therapeutic alliance with the neurologist/psychiatrist and understand the rationale for a multidisciplinary treatment including physiotherapy and psychological intervention.

Finally, the rational and main principles of the multidisciplinary treatment including physiotherapy and psychoterapy should be explained tot he patient. It is not enough to discuss the diagnosis only at the initial consultation, it is necessary to re-engage with the patient at every stage of treatment and reassess the diagnostic features and findings leading to the diagnosis and their possible causes. The patient should be assured that the proposed treatment is the most appropriate way for recovery.

Keywords: Functional neurological disorder, psychoeducation, psychotherapy, illness beliefs

References

1. Stone, J., & Edwards, M. (2012). Trick or treat? Showing patients with functional (psycho-genic) motor symptoms their physical signs. Neurology, 79(3), 282–284. https://doi.org/10.1212/WNL.0b013e31825fdf63
2. Aybek, S., & Perez, D. L. (2022). Diagnosis and management of functional neurological disorder. BMJ (Clinical research ed.), 376, o64. https://doi.org/10.1136/bmj.o64
3. Keatley, E., & Molton, I. (2022). A Shift in Approach: Assessment and Treatment of Adults With Functional Neurological Disorder. Journal of health service psychology, 48(2), 79–87. https://doi.org/10.1007/s42843-022-00061-w

[Abstract:0503] [Sleep disorders]

Sleep Problems Related to Technology Use in Adolescents: Practical Applications in the Management of Sleep Disorders through Clinical Experience

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Sleep is an important brain activity for all periods of our lives. In early childhood, sleep is one of the primary brain activities. A two-year-old child spends approximately thirteen months of his/her life sleeping. During childhood and adolescence, approximately 40% of the day is spent asleep. Although there are many reasons for not getting enough and quality sleep, one of the main reasons is environmental factors. These environmental factors include late hours of studying, late hours of social activities, exposure to electronic devices such as watching television, using cell phones, computers and tablets in bed or during the transition to sleep, and very early school starting times. There are many factors that affect sleep. These can be individual factors such as temperament, individual biological variables, medical problems, developmental delay, stress, as well as family-related factors such as parents' level of education, level of knowledge on child development, parenting styles, their own sleep quality and family stresses. In addition, the physical condition of the place where the child sleeps, family structure, family lifestyle and cultural differences can be considered as environmental factors. Recent studies have shown that inadequate sleep quality and duration can lead to many psychosocial and clinical problems, especially in children and adolescents. This presentation is planned to discuss and evaluate sleep disorders due to technology use in adolescents at the clinical level.

Keywords: Sleep, adolescent, technology

[Abstract:0505] [Others]
Effects of Untreated Mental Disorder on the Fetus, Newborn and Infant

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Pregnancy is a process in which the body is exposed to many changes in order to create a suitable intrauterine environment for the healthy development of the fetus, and the foundations of the future mental and physical health of the fetus are laid. The developing fetus creates a response under the influence of internal and external factors during this sensitive period of cellular proliferation and differentiation. This response leads to structural and functional changes in cells, tissues and organs, and thus a susceptibility to diseases that occur later in life occurs. In this process, psychological factors as well as physiological factors can be decisive for the course of pregnancy by affecting adaptation to changes. Stress experienced in the womb is also one of these factors. Stress is a signal response to difficult and uncontrollable negative events and perceived threats. Stress has a great biological importance in ensuring adaptation to changing conditions. Although stress is stimulating and motivating at low doses, harmful effects may occur when its severity and duration are high.

It is suggested that exposure of the fetus to maternal stress in the intrauterine environment causes changes in the central nervous system, the autonomic nervous system, and the hypothalamo-pituitary-adrenal (HPA) axis, a neuroendocrine system associated with the stress response, and this is explained by the fetal programming hypothesis. Psychosocial stress or exposure to biological stress factors during pregnancy are among the factors underlying the negative outcomes associated with the fetal programming process.

Untreated mental disorders have consequences related to birth, neurodevelopment, emotional and behavioral patterns, and physical diseases. Stress experienced in the womb and untreated perinatal mental disorders (such as anxiety disorder, depression, schizophrenia, bipolar disorder) have been found to be associated with susceptibility to premature birth, low birth weight, placental anomalies, late recognition of pregnancy, stillbirth, delay in cognitive development, increased risk of neurodevelopmental disorders (attention deficit and hyperactivity disorder, autism spectrum disorder), baby with difficult temperament, depression, emotional and behavioral disorders from infancy to adolescence,metabolic, immune and endocrinological system related disorders, easy to catch allergic diseases and infectious diseases related problems1-3.

It is thought that there are possible mechanisms under these reasons such as decreased blood flow to the fetus, high cortisol level, low serotonin level due to low MAO-A expression in the placenta, telomere biology, and disruption of the intestinal microbiota.

During the perinatal period, treatment for mental disorders is generally avoided by both families and experts due to fear of side effects of medications. However, the consequences of untreated mental disorders are substantial. The results of the studies show us that we should consider the mental health status of pregnant women as well as their physical health and that necessary interventions are inevitable. In the perinatal period, support should be obtained from professionals on the subject and the treatment process should be considered.

Keywords: Maternal depression, neurodevelopment, perinatal mental health, stress during pregnancy, untreated mental disorder.

References

1. Szegda K, Bertone-Johnson ER, Pekow P, et al. Prenatal perceived stress and adverse birth outcomes among Puerto Rican women. J Womens Health. 2018; 27:699-708.
2. Manzari N, Matvienko-Sikar K, Baldoni F, O'Keeffe GW, Khashan AS. Prenatal maternal stress and risk of neurodevelopmental disorders in the offspring: a systematic review and meta-analysis. Soc Psychiatry Psychiatr Epidemiol. 2019; 54:1299-309.
3. Entringer S, Buss C, Swanson JM, et al. Fetal programming of body composition, obesity, and metabolic function: the role of intrauterine stress and stress biology. J Nutr Metab. 2012.

[Abstract:0507] [Addiction Psychiatry]

First Contact and Engagement in Treatment

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Substance and alcohol users are among the patient groups who have the most difficulty in attending to treatment. Therefore, before the techniques and approaches used to ensure recovery, the most important point is to increase the patients' engagement in treatment and ensure their regular attendance. Research shows that the highest dropout rates in addiction treatment occur after the very first session. This result emphasizes the importance of increasing engagement, participation and treatment motivation in the first session. In this panel, the points the interviewer should pay attention to during the first meeting, what needs to be done to maintain engagement throughout the interview, and ways to increase motivation for change will be discussed.

Keywords: treatment engagement, change, motivation

[Abstract:0508] [Psychopharmacology]

Cognitive Dissengagement Syndrome [Sluggish Cognitive Tempo (SCT)] and Treatment Modalities in children and adolescent

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SCT and Psychosocial Treatment
There are few studies in the literature examining psychosocial treatment methods to reduce SCT symptoms. In a randomized controlled trial examining behavioral intervention involving home and school for children with attention deficit and hyperactivity disorder, behavioral interventions were found to reduce SCT symptoms. In a randomized controlled trial involving school-based homework interventions with middle school students, SCT symptoms were reduced in parents' reporting, while adolescents' reporting had no difference.
No specific intervention has been developed for individuals with sct. This may be due to limited knowledge of the factors that contribute to the symptoms of SCT and the mechanisms that influence treatment development. Behavioral activation, Cognitive Behaviour Therapy (CBT), sleep hygiene, mindfulness-based trainings, time management and organizational skills, and social skills training for symptoms that cause impairment.
SCT and Pharmacologic Treatment
There is no recommended treatment guideline for SCT yet. Methylphenidate, lisdexamfetamine, and atomoxetine have been found effective in reducing SCT symptoms. Two study in children with ADHD, methylphenidate was found to reduce SCT symptoms. In a randomized double-blind study conducted with children diagnosed with ADHD between the ages of 7-11, it was reported that methylphenidate had no effect on YBT symptoms. 16-week placebo-controlled, double-blind randomized atomoxetine study in children aged 10–16 years with ADHD+Dyslexia, Dyslexia-only, or ADHD-only, atomoxetine has been found to benefit SCT symptoms Regardless of ADHD symptoms.

Keywords: Cognitive disengagement syndrome, Sluggish Cognitive Tempo, treatment

References

1. Wood WL, Lewandowski LJ, Lovett BJ, Antshel K. Sluggish cognitive tempo and impairment: The role of lifestyle factors. Psychology in the Schools. 2020;57(7):1171-88.

2. Smith ZR, Langberg JM. Do sluggish cognitive tempo symptoms improve with school-based ADHD interventions? Outcomes and predictors of change. Journal of Child Psychology and Psychiatry. 2020;61(5):575-83.
3. Fırat S, Gul H, Aysev A. An open-label trial of methylphenidate treating sluggish cognitive tempo, inattention, and hyperactivity/impulsivity symptoms among 6-to 12-year-old ADHD children: What are the predictors of treatment response at home and school? Journal of attention disorders. 2021;25(9):1321-30.
4. Froehlich TE, Becker SP, Nick TG, Brinkman WB, Stein MA, Peugh J, et al. Sluggish cognitive tempo as a possible predictor of methylphenidate response in children with ADHD: A randomized controlled trial. The Journal of clinical psychiatry. 2018;79(2):19052.
5. McBurnett K, Clemow D, Williams D, Villodas M, Wietecha L, Barkley R. Atomoxetine-related change in sluggish cognitive tempo is partially independent of change in attention-deficit/hyperactivity disorder inattentive symptoms. Journal of child and adolescent psychopharmacology. 2017;27(1):38-42.

[Abstract:0509] [Mood disorders]

The Relationship Between Chronotype and Depressive Disorders

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Circadian rhythm is defined as the biological and rhythmic activity that affects the sleep-wake cycle, mood, hormonal functions, cognition and body temperature in humans. It effects human physiology and behaviour. The circadian rhythm is regulated by the suprachiasmatic nucleus in the anterior hypothalamus and the pineal gland in the midbrain. In addition to the hereditary characteristics of the individual, environmental factors such as darkness and light affect the activity of the suprachiasmatic nucleus. Circadian abnormalities are associated with variation of sleep-wake cycle. Variations in circadian rhythms are described as morningness and eveningness, additionally named as chronotypes. One of the hypotheses trying to explain the pathogenesis of depressive disorder is the circadian rhythm disruption hypothesis. In patients with major depression have circadian rhythm disturbances such as diurnal mood and sleep phase changes, fluctuations in hormone secretion and body temperature. Depression is often accompanied by sleep disorders such as difficulty falling asleep, waking up early, not sleeping deeply, and waking up frequently at night. Waking up early in the morning, shortening of REM (rapid eye movements) latency and shifting its intensity to the first third of the night indicate that the circadian rhythm is disrupted in patients with depression or that disruption in circadian rhythm contributes to the occurrence of depression. Bidirectional relationship is still unclear. In depressive disorder, in addition to the shortening of REM latency, there is also an increase in REM sleep duration and a decrease in the slow sleep wave of NREM (non-rapid eye movement), where sleep deepens. Sleep disturbances in depressed patients may begin before the depressive symptoms. It is also thought that insomnia may be a risk factor for the onset and recurrence of depression and negatively affect the course of depression. Even in healthy individuals, circadian rhythm and sleep process directly affects mood. It has been shown that eveningness increases depressive symptoms in healthy individuals, furthermore, eveningness is associated with increased depressive symptoms severity in depressive disorder such as increased the suicidal thoughts. According to recent literature, eveningsness is a risk factor for depressive disorder, while morningness is a protective factor (1, 2). Clock gene polymorphism can affect the brain structures associated with mood and circadian rhythm. Neuroimaging studies have shown that there are differences in the hippocampus, amygdala, and dorsal anterior cingulate cortex and related regions, which are related to emotional regulation processes in individuals who prefer eveningness (3).Eveningness may be premorbid state for depression. Disruption of sleep wake rhythm may impair neurotransmitter (dopamine, serotonine) releasing activity. Changes in neurotransmitter release may explain the reason for diurnal mood changes in depression. Chronotypes can be used for determining earlier the subjects who are at risk of developing depressive disorder. Chronotype preference may be predictive factor for developing depressive disorder. In this presentation, the relationship between depressive disorder and chronotype, and the effect of chronotype on the severity and course of depression will be discussed in detail.

Keywords: Depression, Chronotype, Circadian Rhythm, Sleep

References

1)Chan, J.W., Lam, S.P., Li, S.X., Yu, M.W., Chan, N.Y., Zhang, J., Wing, Y-K., 2014. Eveningness and insomnia: independent risk factors of nonremission in major depressive disorder. Sleep 37, 911-917.
2) Merikanto, I., Kronholm, E., Peltonen, M., Laatikainen, T., Vartiainen, E., Partonen, T., 2015. Circadian preference links to depression in general adult population. J. Affect. Disord. 188, 143-148. 3) Bauducco, S., Richardson, C., & Gradisar, M. (2020). Chronotype, circadian rhythms and mood. Current Opinion in Psychology, 34, 77-83.

[Abstract:0510] [Others]

Introduction of Pre-School Age Psychiatric Assessment (PAPA) and Our Clinical Experience with PAPA

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In our country, due to the lack of a reliable and valid structured interview tool to conduct psychiatric evaluations of preschool children, the parameters of preschool psychopathology is mostly unknown. The Preschool Age Psychiatric Assessment (PAPA) is a comprehensive and reliable diagnostic tool mentioned in literature to assess psychopathologies of preschoolers Edger et al., 2004). In aim to introduce such a diagnostic tool into our language, we carried out the validity and reliability study by adapting PAPA to the Turkish society and evaluate the psychometric properties of Turkish version.
PAPA, which is a structured and parent-based interview method was started to be developed in 1999. It evaluates the symptoms in four main areas: (1) diagnostic criteria of all diagnoses in DSM-V ve ICD-11, which are related to the considered age group, so conditions such as substance-related disorders or sexual disorders have been removed; 2) all of the Research Diagnostic Criteria-Preschool Age (RDC-PA) items; 3) all of the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood 5 (DC: 0-5); 4) potential behaviors and symptoms which are not merely diagnostic criteria like sleeping rituals and peer relationship. Family environment and relationships, family psychosocial problems, and functional impairments resulting from life events and addresses not only diseases or problematic areas but also all areas that play a role in the mental well-being of young children were also evaluated. In addition, evaluating the relational context of preschool behavior is one of the most important features of PAPA. It is regularly updated to reflect changes in diagnostic systems. The latest available version assesses the following areas: family structure and function, brief developmental assessment, child care, play and peer relationships, somatization, food preferences and appetite, elimination behaviors, sleep behaviors, separation anxiety, worries, anxious affect, rituals and repetitions,stereotypes, tics and trichotillomania, reactive attachment disorder, regulation, psychosis, hypomania and mania, depression, conduct problems, hyperactivity, post-traumatic stress disorder (PTSD), life events, incapacity, impact assessment and ending the interview.
According to the reliability study of PAPA (Egger et al., 1999), no significant difference was found according to age, gender, and race. The interview has been shown to be valid even for the assessment of children as young as two years of age.
In our outpatient clinic, all patients aged 2-6 years who applied were evaluated in terms of inclusion/exclusion criteria, and written and verbal consent was obtained from the parents who agreed to participate in the study. After that, a child psychiatrist interviewed the children and conducted psychiatric examinations of the children. After the psychiatric examination and evaluation of the patients, the PAPA interview was implemented with the parents. The sociodemographic data form and the PAPA short forms were filled out by the clinician conducting the interview.
The data of more than 300 children were collected and following a detailed and meticulous statistical study process, the psychometric features of Turkish version of PAPA were found to be adequately reliable and strongly consistent with both DC: 0-5 and DSM-5 symptoms and disorders in preschoolers.

Keywords: Preschool Age Psychiatric Assessment, PAPA, Preschool Children, Psychopathology

References

1. Egger, HL, Angold, A, Small, B, Copeland, W. The preschool age psychiatric assessment. In The Oxford Handbook of Infant, Toddler, and Preschool Mental Health Assessment. Oxford University Press: 1999; 227-243.
2. Egger, HL, & Angold, A. The Preschool Age Psychiatric Assessment (PAPA): A Structured Parent Interview for Diagnosing Psychiatric Disorders in Preschool Children. In R. DelCarmen-Wiggins & A. Carter (Eds.), Handbook of infant, toddler, and preschool mental health assessment. Oxford University Press: 2004; 223-243.

[Abstract:0511] [Attention deficit hyperactivity disorder (ADHD)]
Attention Deficit Hyperactivity Disorder and Emotional Dysregulation

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Emotion regulation involves processes that enable individuals to flexibly select, participate in, and evaluate emotionally stimulating stimuli. It is an individual's ability to modulate (1) the intensity and frequency of physiological, experiential, and behavioral expression of emotion; (2) the intensity of physiological, experiential, and behavioral expression of an emotion; and (3) the rate and degree of decline of physiological, experiential, and behavioral expression of emotion consistent with optimal function. Emotion dysregulation is the inability of a person to use any or all aspects of the modulatory processes involved in emotion regulation to an extent that results in the person functioning well below his or her baseline level. Children with attention-deficit/hyperactivity disorder (ADHD) often react strongly to emotionally arousing situations. As a result, people with ADHD often exhibit extreme and rapidly changing emotions, often associated with irritable and aggressive behavior, a tendency toward anger, and low stress tolerance. Emotional

dysregulation can be caused by problems with impulse inhibition and underdeveloped working memory. As a result, emotional impulsivity and problems with impulse inhibition are associated with greater emotional and behavioral dysregulation. Children with ADHD are more likely to experience negative affect and emotional instability and have difficulty regulating and expressing their emotions. Children and adolescents with ADHD also have difficulty recognizing and understanding the emotions of others. These symptoms are more common in the combined subtype of ADHD, especially in combination with oppositional defiant behavior, and their severity increases with the severity of the other ADHD symptoms. People with ADHD and emotional dysregulation have been shown to have more severe impairments in overall functioning. Prevalence studies have found that the prevalence of emotional dysregulation in children with ADHD ranges from 24% to 50%, the frequency of emotional dysregulation increases in children with the combined type, and the rates of emotional dysregulation in children with ADHD are 10 times higher than in the general population. Children and adolescents with ADHD and emotional dysregulation may represent a subgroup of ADHD with different temperaments and neural correlates. Several reviews conclude that emotional symptoms in ADHD are not simply comorbid symptoms with ADHD. They are common and persistent in adolescents and adults with ADHD, occur even in noncomorbid cases, and are sufficiently specific to serve as diagnostic criteria for the disorder. The ability to regulate both positive and negative emotions may be impaired in children and adolescents with ADHD. Emotional dysregulation may manifest as too much enthusiasm or excitement or as outbursts. In either case, there is a difficulty in managing emotions that leads to problematic outcomes for young people. Neither the severity of ADHD nor the functional impairments over the life course can be adequately explained by the core symptoms. Given the prevalence of deficits in emotion regulation in patients, often associated with significant functional impairment, deficits in emotion regulation have been considered a translational factor relevant to ADHD. The relationship between ADHD and social skills is mediated by emotion regulation in adolescents. The higher peer rejection in children with ADHD may be due to less developed emotional and social skills. Children with ADHD would also suffer from emotional and attentional dysregulation due to frequent sleep problems. Research on treating young people with ADHD and emotional dysregulation is limited. Guidelines and clinical trial results suggest that medications that target ADHD symptoms should generally be the first-line treatment. First, stimulant therapy alone has a high chance of improving ADHD symptoms, aggressive behavior, emotional dysregulation, and irritability. When impulsive-aggressive behaviors cannot be adequately reduced with optimized first-line stimulants, there are supportive data for the additional use of risperidone and the anticonvulsant/mood stabilizer divalproex sodium. It has been widely studied and used to treat disruptive behavior disorders in children with ADHD through family-based treatments. There is also evidence that dialectical behavior therapy and anger management approaches can be useful. However, many children with ADHD lack the self-awareness to monitor the occurrence of anger within a short period of time and to modulate their appraisals and responses, so initial treatment of ADHD may make these interventions more feasible.

Keywords: Attention Deficit Hyperactivity Disorder, Emotional Dysregulation, child, adolescent

[Abstract:0512] [Sleep disorders]

Chronodisruption and Trauma: Understanding The Biologic Rhythm and Sleep Disruption

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In this presentation, we will begin with a brief overview of the human circadian and stress system, and how they interact with each other at multiple levels. We will then discuss the topic of how excessive stress, such as that experienced in traumatic events, can disrupt the sleep rhythm and cause circadian dysregulation. This disruption is often observed in individuals with posttraumatic stress disorder (PTSD), and can be either reversible or sustained depending on the severity of the trauma.

The body's internal clock, known as the circadian timing system, plays a crucial role in regulating various physiological processes, such as gene expression and behavior. The suprachiasmatic nucleus (SCN) serves as its central hub, while the hypothalamic-pituitary-adrenal (HPA) axis and the autonomic nervous system work together to maintain the circadian rhythm during rest. When the body experiences traumatic stress, the release of glucocorticoids can disrupt the balance of systems, leading to biobehavioral issues. Chronodisruption occurs when the misalignment of the circadian rhythm exceeds a certain threshold, leading to a loss of biological temporal order across different levels of organization. This condition, called post-traumatic circadian irregularity or "chronodisruption," can negatively impact the neuroendocrine, immune, and autonomic systems. Given that many traumatic events happen at night, it raises the question of how the timing of such events affects the body's stress response. The timing of psychological stress during the day and the active/passive states of HPA may interact together resulting in unique trauma responses changing the circadian internal clock system. In sustained chronodisruption, both master clock SCN, and “slave” clocks are chronically affected. The dysregulation brings an impaired sleep schedule, altered memory consolidation, and susceptibility to PTSD findings.

Trauma-induced circadian dysregulation can increase stress and alter further biobehavioral adaptations, including gene expression, affecting stress susceptibility to other adverse life events.

It has been observed that exposure to stress during different time zones, such as rest versus activity phase, can have varying effects on circadian rhythmicity due to the differences in the HPA axis responsivity. To prevent the long-term effects of traumatic stress and potentially reduce the risk of PTSD, it is believed that regulating sleep and circadian rhythms before or after exposure to stress can be helpful. This could be done through various methods such as behavioral circadian adaptation, maintaining good sleep hygiene, or even pharmacologic treatments as a mental health protection strategy.

Keywords: chronodisruption, sleep disorder, trauma, psychiatry, HPA axis

[Abstract:0513] [Obsessive-compulsive disorders (OCD)]

Transcranial Magnetic Stimulation (TMS) Efficacy and Deep Transcranial Magnetic Stimulation (dTMS) Application Principles in Treatment-Resistant Obsessive Compulsive Disorder (OCD)

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TMS is a technique that aims to create a small and temporary electric current in the cerebral cortex by means of a vertically oriented short intense magnetic field provided by electric current by means of a coil placed on the scalp. TMS treatment is based on the principle of generating a transmembrane action potential by stimulating neuronal membranes. Depending on the application intensity, the magnetic field that occurs during the application can be effective up to 1.5 - 2 cm deep under the scalp and thus affect the cortical and subcortical structures. It has been reported that the generated magnetic field does not damage the scalp and brain tissue while it passes through, and does not cause electrical resistance.
After treatment with SSRI (Selective Serotonin Reuptake Inhibitor) and Cognitive behavioural therapy (CBT) with proven effectiveness in the treatment of OCD, a decrease in hyperactivity in glucose metabolism was found in the prefrontal cortex, especially in orbitofrontal cortex (OFC). Due to the successful results obtained by stimulating the subthalamic nucleus with deep brain stimulation and the easier access to the striatum and subthalamic nucleus, which is another alternative in the treatment of OCD, from OFC during neurosurgical interventions; OFC has been one of the target areas for TMS applications in the treatment of OCD (1). Since TMS allows for different treatment options, it is aimed to target the orbitofrontal subcortical circuits, corticostriatothalamic structures and medial caudate nuclei, which were also found to be affected in OCD in functional imaging studies. Therefore, TMS studies in OCD have been dorsolateral prefrontal cortex (DLPFC) because it is close to these regions and was preferred in previous depression studies.
In functional neuroimaging studies, hyperactivity has also been found in premotor areas such as the supplementary motor area (SMA) and dorsal anterior cingulate in OCD. It is known that SMA has a role in the higher cortical control of subroutine motor actions and the organization of motor activities in a certain order.
The lack of inhibitory control due to increased activity in SMA is thought to be important in the etiology of compulsions. Inhibition of these regions by stimulation with low-frequency TMS is thought to be therapeutic in OCD by reducing motor cortex excitability (2).
Converging evidence suggests a dysfunction of the cortical-striatal-thalamic-cortical circuit in OCD, and a previous feasibility study indicated beneficial effects of dTMS targeting the medial prefrontal cortex and the anterior cingulate cortex. The authors examined the therapeutic effect of dTMS in a multicenter double-blind sham-controlled study.
High-frequency dTMS over the medial pre-frontal cortex and anterior cingulate cortex significantly improved OCD symptoms and may be considered as a potential intervention for patients who do not respond adequately to pharmacological and psychological interventions (3).

Keywords: Obsessive compulsive disorder; Transcranial Magnetic Stimulation; Deep Transcranial Magnetic Stimulation; Treatment Resistant

References:

1. Mallet L, Polosan M, Jaafari N, Baup N, Welter M-L, Fontaine D, et al. Subthalamic nucleus stimulation in severe obsessive–compulsive disorder. New England Journal of Medicine. 2008;359(20):2121-2134.
2. Blom RM, Figee M, Vulink N, Denys D. Update on repetitive transcranial magnetic stimulation in obsessive-compulsive disorder: different targets. Current psychiatry reports. 2011;13(4):289-294.
3. Carmi L, Tendler A, Bystritsky A, Hollander E, Blumberger DM, Daskalakis J, et al. Efficacy and Safety of Deep Transcranial Magnetic Stimulation for Obsessive-Compulsive Disorder: A Prospective Multicenter Randomized Double-Blind Placebo-Controlled Trial. Am J Psychiatry 2019; 176(11):931–938.

[Abstract:0514] [Others]
N-Acetylcysteine for Nonsuicidal Self-Injury Behavior

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Nonsuicidal self-injury (NSSI) behaviors are an important public health problem and are frequently reported by clinicians. NSSI is described as repeated cutting, burning, hitting, rubbing, or otherwise deliberately inflicting damage to body tissue for non-socially sanctioned reasons, but not as a suicide attempt, and it does not include body manipulations for body adornment (e.g., tattoos or piercings). As these behaviors are often preceded by emotional distress and followed by subjective relief, NSSI is hypothesized to function as a maladaptive attempt to relieve dysphoric affect that might have an addictive or compulsive quality. In community samples, NSSI cases occur in up to 6% of adults and up to 35% of adolescents. The onset of NSSI behaviors is usually between the ages of 12 and 16. NSSI behaviors are more common among females in adolescence. In adult cases, there is no gender difference.
N-acetylcysteine (NAC) is an amino acid which cysteine and glutathione precursor, is used with many different indications to treat a wide range of disorders as pulmoner diseases, heavy metal and several drug intoxication. On the other hand, due to its neuroprotective effects, its clinical use has included the treatment of different psychiatric disorders. In the literature, NAC was used as an augmentation therapy for many psychiatric disorders such as obsessive-compulsive disorder, schizophrenia, bipolar disorder, depression, and substance abuse. The action of NAC may be associated with two mechanisms: modulation of glutamatergic system and antioxidation. NAC modulates the glutamatergic system by increasing in extracellular cystine (oxidized form of cysteine), which lead to an increase in glutamate shuttle to the out of cell by the glutamate-cystine antiporter.
The most important factors in the treatment of NSSI behaviors are eliminating self-harming behaviors, controlling impulsive and aggressive behaviors, and treating co-psychiatric disorders, if any. There are limited studies testing NAC in the treatment of NSSI, and studies have found different results. In a case study with using NAC, it was reported that NSSI behaviors decreased with NAC treatment. Existing data on NAC in NSSI are limited and controversial and do not support the use of NAC as first-line treatment for NSSI. Nonetheless, NAC might improve some NSSI and its beneficial side effects profile, availability, and low cost should be taken in consideration when adjunctive medication in the armamentarium of agents used for NSSI is discussed.

Keywords: Nonsuicidal self-injury (NSSI), N-acetylcysteine (NAC), glutamatergic system

[Abstract:0516] [Anxiety disorders]
Assessment of Mood, Anxiety and Related Disorders of Children with PAPA

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The public health burden of psychiatric disorders in preschool children is a problem whose scope is not well understood. Anxiety disorders are one of the most common mental disorders, highly comorbid with each other and with other disorders, and associated with substantial impairment across the lifespan. Individuals with anxiety disorders are at increased risk for developing subsequent anxiety, depressive, and substance use disorders. Many anxiety disorders have their onset in early childhood. Generalized anxiety disorder, separation anxiety disorder, and social phobia, are thought to be among the most common in the preschool children. However, little is known about anxiety disorders during early childhood, as research has predominantly examined anxiety disorders in school-age children and adolescents. Further knowledge about anxiety disorders in early childhood is critical for improving early identification and informing efforts to intervene early and effectively during the preschool years. Early interventions programs such as cognitive-behavioral interventions are useful in the treatment of anxiety disorders. Whether applied in individual or group settings, the principles of such work include psychoeducation of the individual and his or her family (particularly important in children), exposure techniques, and cognitive restructuring. Based on these principles, Rapee et al. developed a program for parents of preschool children with behavioral inhibition. For a large-scale intervention to be acceptable and sustainable. Appropriate assessment tools are needed for the implementation of these early intervention programs.
Developmentally sensitive, structured diagnostic interviews with parents for the assessment of preschool psychopathology such as Preschool Age Psychiatric Assessment (PAPA) have become available. PAPA is a parent interview for diagnosing psychiatric symptoms and disorders in preschool children aged 2 through 5 years. It is a structured psychiatric assessment involving a range of mandatory questions and probes, supplemented by further detailed exploratory probing to ensure that the ratings appropriately represent the child's problems. When symptoms (e.g. irritability) were reported, their frequency, duration and onset dates were also collected for a three- month primary period, in order to determine whether they met the criteria for the symptoms of various DSM- V diagnoses. Psychometric testing has shown PAPA is as reliable as those designed for older children, adolescents, and adults Until recently,

necessary epidemiological research on preschool mental health disorders was inhibited by the lack of reliable and valid assessment instruments especially in our country. The Turkish validity and reliability study of PAPA was conducted and adapted to Turkish culture. With the PAPA, anxiety disorders such as separation anxiety disorder, generalized anxiety disorder, specific phobia, social phobia and selective mutism, which are common in children, can be evaluated in detail and diagnosed. In this presentation, headings such as evaluation and diagnosis of anxiety disorders using PAPA will be explained.

Keywords: anxiety, preschool, psychiatric, assessment, structured, interview

[Abstract:0518] [Perinatal psychiatry]

Lactation period in schizophrenia patients: medication use and breastfeeding

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The treatment of patients with schizophrenia presents unique challenges, particularly during pregnancy and breastfeeding, when the risk of relapse of the disorder is increased. Given the well-established nutritional, immunological, somatic, physical, neurodevelopmental, and psychological advantages, the American Academy of Pediatrics (AAP) advises exclusive breastfeeding for the first six months of life. The benefits of breastfeeding often seem to outweigh the small risks posed by psychotropic medications used to treat postpartum mental disorders in breastfeeding mothers. However, the literature is scant and more research is needed to make evidence-based recommendations [1].
The aim of this presentation is to discuss the potential effects of antipsychotic medications commonly used in the treatment of schizophrenia on the breastfeeding process and the impact on both mothers and infants. Each case should be evaluated taking into account the importance of treatment, timing of treatment, choice of medication, mode of action, drug tolerance, overall toxicity and the importance of continuing to breastfeed the infant [2]. In the context of a collaborative decision-making process, the potential advantages and disadvantages of breastfeeding should be carefully weighed and the monitoring of the infant's development and general health by pediatricians and psychiatrists are required [3]. It is critical to consider the health of both the mother and the infant when considering treatment options. Psychological support is strongly required to motivate women with schizophrenia to nurse and provide the greatest care for their infants, antipsychotic drug use in newborns remains a clinical concern. Effective management of the treatment processes of patients with schizophrenia is of great importance not only for the individual well-being of individuals, but also for the health of society and future generations.

Keywords: schizophrenia, lactation, antipsychotic drugs, breastfeeding infant

References

1. Klinger G, Stahl B, Fusar-Poli P, Merlob P. Antipsychotic drugs and breastfeeding. Pediatr Endocrinol Rev 2013; 10:308.
2. Datta, P., Baker, T., & Hale, T. W. (2019). Balancing the use of medications while maintaining breastfeeding. Clinics in perinatology, 46(2), 367-382.
3. Orsolini, Laura, et al. "Severe and persistent mental illness (SPMI) in pregnancy and breastfeeding: focus on second-generation long acting injectable antipsychotics." Expert Opinion on Drug Safety 20.10 (2021): 1207-1224.

[Abstract:0519] [Others]

Transcranial Magnetic Stimulation (TMS) Therapy: Efficacy, Safety, and Side Effects Stanford Accelerated Intelligent Neuromodulation Therapy

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Transcranial Magnetic Stimulation (TMS) therapy is described as an innovative and alternative treatment method for treatment-resistant depression and obsessive-compulsive disorder (OCD). TMS therapy is based on the principle of applying a magnetic field, obtained perpendicularly to the electrical field, directly to a specified point in the brain, affecting the connectivity pathways in the brain. TMS involves the application of a repeating and intermittent electrical field, generated at the level of several thousand amperes, with the help of a capacitor capable of storing electrical charge, directly to the brain through a coil. This generates a magnetic field from the electrical field produced in this way. The intensity, frequency, and applied pulses of the magnetic field are determined according to specific protocols through

systematic studies based on Faraday's law and Maxwell's equations. By depolarizing cortical neurons in this field, long-term functional changes are induced in the relevant brain region (1).
In the treatment of major depressive disorder, the left dorsolateral prefrontal cortex (DLPFC) of the brain is targeted. Protocol selection is planned in the form of first and second-generation pulses, taking into consideration the patient's age, electroencephalographic findings, metabolic status, and blood parameters. Repetitive application of magnetic field therapy has the potential to create long-term changes in the relevant brain region. This change affects the interaction of different connectivity pathways in the brain, especially those involving the limbic, executive, and default-mode neural networks, and a negative relationship between the anterior cingulate cortex and the left DLPFC has been reported to be related to treatment response (2).
The demonstration of the effectiveness of TMS therapy, especially in treatment-resistant depression, reaching levels of 60-80%, and the success of deep TMS in the treatment of obsessive-compulsive disorder patients at a rate of 45.2%, indicate that there may be significant developments in this field in the future. Finally, the approval of TMS therapy in smoking addiction and promising preliminary studies in alcohol substance addiction have elevated the level of evidence for the effectiveness of TMS therapy to the highest level. The success of the accelerated TMS method (SAINT) in treatment-resistant depression cases with suicidal thoughts, without the need for anesthesia, has been groundbreaking in the treatment of such cases within 5 days (3). In conclusion, TMS therapy is considered an important treatment option in interventional psychiatry, and it may become the first choice in the treatment of resistant cases in the future, with the expansion of its application as technology advances.

Keywords: TMS, SAINT, Depression, OCD, DLPFC

References

1. Siebner HR, Funke K, Aberra AS, Antal A, Bestmann S, Chen R, Classen J, Davare M, Di Lazzaro V, Fox PT, Hallett M, Karabanov AN, Kesselheim J, Beck MM, Koch G, Liebetanz D, Meunier S, Miniussi C, Paulus W, Peterchev AV, Popa T, Ridding MC, Thielscher A, Ziemann U, Rothwell JC, Ugawa Y. Transcranial magnetic stimulation of the brain: What is stimulated? - A consensus and critical position paper. Clin Neurophysiol. 2022 Aug;140:59-97. doi: 10.1016/j.clinph.2022.04.022. Epub 2022 May 18. PMID: 35738037.
2. Liston C, Chen AC, Zebley BD, Drysdale AT, Gordon R, Leuchter B, Voss HU, Casey BJ, Etkin A, Dubin MJ. Default mode network mechanisms of transcranial magnetic stimulation in depression. Biol Psychiatry. 2014 Oct 1;76(7):517-26. doi: 10.1016/j.biopsych.2014.01.023. Epub 2014 Feb 5. PMID: 24629537; PMCID: PMC4209727.
3. Cole EJ, Stimpson KH, Bentzley BS, Gulser M, Cherian K, Tischler C, Nejad R, Pankow H, Choi E, Aaron H, Espil FM, Pannu J, Xiao X, Duvio D, Solvason HB, Hawkins J, Guerra A, Jo B, Raj KS, Phillips AL, Barmak F, Bishop JH, Coetzee JP, DeBattista C, Keller J, Schatzberg AF, Sudheimer KD, Williams NR. Stanford Accelerated Intelligent Neuromodulation Therapy for Treatment-Resistant Depression. Am J Psychiatry. 2020 Aug 1;177(8):716-726. doi: 10.1176/appi.ajp.2019.19070720. Epub 2020 Apr 7. PMID: 32252538.

[Abstract:0521] [Others]

Assessment of Conduct Problems, ADHD and Trauma Related Disorders of Children with PAPA

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Early childhood is now believed to be an important developmental period in which substrates of long- term emotional health are laid down. A reliable and well-structured diagnostic tool that comprehensively evaluates psychiatric symptoms and disorders in young children will enable the comprehensive evaluation and investigation of all psychopathologies in the preschool period. The Preschool Age Psychiatric Assessment (PAPA) is the first published diagnostic interview to assess parent-reported psychiatric disorders in preschoolers between the ages of 2 and 5. Like the CAPA, the PAPA combines the characteristics of an interviewer-based and a respondent-based interview. Comprehensive, structured, glossary-based psychiatric interview for assessing psychiatric symptoms (emotional, behavioral), symptom scale scores, and diagnoses, as well as life events, family structure and functioning, and impairment in preschool children. Attention-deficit/hyperactivity disorder (ADHD) and oppositional defiant disorder (ODD) are involved in behavioral disorders. Lifetime occurrence of severe symptoms including suicidality, fire-setting, and cruelty to animals and people are assessed, as well as lifetime occurrence of potentially traumatic life events such as child abuse or death of a parent. Examples of developmentally inappropriate items that were excluded from the PAPA include questions about substance use, sexual history, and some conduct problems including committing truancy, stealing cars, and breaking curfew. A key point about the PAPA is that most sections include some behaviors that are regarded as being normal in preschoolers at certain levels of frequency and pathological at other levels of frequency (e.g., temper tantrums, impulsivity). Because population-based norms for many preschool behaviors and symptoms are lacking, it is important to be able to assess the prevalence, frequency, duration, content, and context of such behaviors to provide epidemiologic data on the prevalence and distribution of these behaviors and then empirically determine the boundaries

between normative and pathological or clinically significant[behaviors. There are also substantial developmental changes across the preschool period and the PAPA provides the ability to define age-specific diagnostic criteria. The PAPA separately assesses the presence of the symptoms and the presence of disabilities (impairment in DSM terms) resulting from symptoms. They use the World Health Organization_s International Classification of Functioning, Disability and Health (ICF; World Health Organization, 2001) definition of disabilities as negative functional outcomes resulting from health conditions, involving significant deviation from or loss of normal or expected function. The PAPA assesses disability in 30 areas including the child_s relation- ships with his or her parents, other adults, siblings, and peers, as well as the child' s functioning in the home By separately assessing the effect of symptoms on functioning and on the quality of the child_s relationships with significant others, one can distinguish between functional impairment and distress caused by the symptoms. Disability was considered present if the parent reported that the child was disabled in one or more areas.

Keywords: PAPA, ADHD, CD, PTSD, disabilities

[Abstract:0522] [Sleep disorders]

Evaluating Sleep Problems in Infants and Children in Outpatient Clinic Setting Distinguishing Normal from Abnormal Through History, Examination, and Scales

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Evaluating Sleep Problems in Infants and Children in Outpatient Clinic Setting Distinguishing Normal from Abnormal Through History, Examination, and Scales
Sleep is a physiological process with significant effects throughout the developmental process; insomnia affects cognitive functions and emotion regulation. Additionally, insomnia has been associated with a wide range of disorders, including behavioral problems, suicidal tendencies, obesity, and insulin resistance, among others. "Mature" sleep consists of roughly two main stages: rapid eye movement (REM) sleep and non-REM (NREM) sleep. NREM sleep is further divided into four main stages, with stages 3 and 4 referred to as slow-wave sleep or delta sleep. In newborns, each sleep cycle lasts approximately 60 minutes, with half of the sleep being "active sleep" and the other half being "quiet sleep." Active sleep includes rapid eye movements and an increased heart rate, similar to the REM phase in adults. Quiet sleep is similar to the NREM phase in adults. Around the age of 2, active sleep decreases to about 20%. By ages 6-11, more distinct sleep cycles emerge, and by the age of 11, slow-wave sleep decreases to 40%, continuing to decline throughout adolescence. By mid-adolescence, sleep patterns become similar to those of adults, with approximately 90-minute sleep cycles. Additionally, bedtime shifts and reduced sleep duration occur with age. According to the American Academy of Sleep Medicine, the recommended average sleep durations for different age groups are as follows: from birth to 12 months: 12-16 hours 1-2 years old: 11-14 hours 3-5 years old: 10-13 hours 6-12 years old: 9-12 hours 13-18 years old: 8-10 hours. Parent reports indicate that around 20-30% of children experience sleep problems. Comprehensive assessment is necessary for families seeking help for sleep problems. Various factors, such as a child's temperament, parental psychopathology, and parental expectations about sleep, can influence sleep problems. A thorough clinical evaluation should encompass the current and past status of sleep problems, medical history including hospitalizations, the impact of sleep problems on the family, assessment of psychopathology, and physical examination. Additionally, it has been suggested that investigating iron deficiency anemia may also be crucial. Another valuable tool in the assessment is the use of clinical assessment scales. In this regard, there are validated and reliable scales available in Turkish. For instance, the Children's Sleep Habits Questionnaire and Children's Chronotype Questionnaire (CCQ) can be used in clinical practice. In addition, when necessary, methods such as polysomnography and actigraphy can also be employed. Sleep problems in infants and children can be categorized into various types, including difficulties falling asleep and staying asleep, delayed sleep phase disorders, parasomnias, sleep-related breathing problems, restless leg syndrome, periodic limb movement disorder, and hypersomnia, among others. In light of the information provided above, the purpose of this presentation is to comprehensively address sleep problems in infants and children.

Keywords: Children, child and adolescent psychiatry, parasomnias, sleep, sleep disorders

References

1. Harvey AG, McGlinchey EL. Sleep interventions: a developmental perspective. In: Thapar A, Daniel SP, Leckman JF, Scott S, Snowling MJ, Taylor E (eds). Rutter's Child and Adolescent Psychiatry. 6th edition. John Wiley and Sons Limited; 2015. p.999-1015.

2. Paruthi S, Brooks LJ, D'Ambrosio C, Hall WA, Kotagal S, Lloyd RM, et al. Consensus statement of the American Academy of Sleep Medicine on the recommended amount of sleep for healthy children: methodology and discussion. J Clin Sleep Med. 2016;12(11):1549-1561.
3. Leung W, Singh I, McWilliams S, Stockler S, Ipsiroglu OS. (2020). Iron deficiency and sleep–a scoping review. Sleep Med Rev. 2020:51;101274.

[Abstract:0523] [Attention deficit hyperactivity disorder (ADHD)]
Theory of Mind in Attention Deficit Hyperactivity Disorder

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Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder that manifests itself with symptoms of attention deficit, hyperactivity and impulsivity, develops in early life through gene-environment interaction, significantly affects functionality and continues throughout life. The majority of adult ADHD patients have executive function problems that include emotional regulation, planning, focus, motivation, time management, organization, and self-discipline. Patients with ADHD experience emotional fluctuations throughout the day and from day to day, irritability, lack of self-confidence, poor academic performance, low self esteem, low frustration tolerance, relationship problems, problems at work, social problems, emotion regulation problems, impairment at executive functions and are at risk for anxiety and depression.
Theory of Mind (ToM) refers to the ability of a person to realize that people other than himself have a different mind than himself, and to understand and predict her own or other people's mental states, behaviors, knowledge, intentions, emotions and beliefs. ToM is defined as the capacity to interpret the thoughts underlying other people's behavior. ToM is critical for social and interpersonal functioning. First-order theory of mind is the ability to detect false thoughts in others. Second-order theory of mind is defined as thought about thought and belief about belief. Understanding metaphor and irony is a more subtle theory of mind skill that involves interpreting abstract speech. Faux pas recognition is the most developmentally complex theory of mind skill, which can be translated as blundering.
Nearly 30 years ago, when researchers discovered that theory of mind was altered in individuals with autism spectrum disorder (ASD). It was thought that theory of mind may also be affected in ADHD, which is another neurodevelopmental disorder. A significant portion of ADHD patients also exhibit symptoms of autism spectrum disorder. Behavioral and social problems seen in ADHD patients can increase the impairment in theory of mind. Attention deficit and executive dysfunction in ADHD patients also play a role in the impairment in ToM. Children with ADHD perform significantly worse on false belief tests and make more errors in mind reading from eyes than children with normal development. Children with ADHD show impairment in self-reported empathy and faux pas recognition test when compared to healthy controls. In a study comparing 42 adolescents diagnosed with ADHD with 41 age- and gender-matched healthy controls, impairment in ToM skills was found in the ADHD group and impairment in ToM is associated with symptom severity. Adolescents with ADHD have problems with second-order social cognition skills, irony, and reading emotions in the eyes. In another study, it was reported that especially behavioral symptoms were correlated with impairment in ToM. In a study comparing adolescents diagnosed with ADHD and ASD and healthy controls, it was found adolescent patients with ADHD and ASD have difficulties in ToM. In another study evaluated the link between ToM skills and emotion regulation, found that theory of mind deficits may partly explain ED in children with ADHD. In a study in which 40 adult ADHD patients were compared with 40 healthy controls and evaluated with reading mind from the eyes test, trail making test and continuous performance test, ToM was found to be significantly impaired in adults with ADHD. In this session, theory of mind in ADHD will be discussed.

Keywords: Attention deficit, hyperactivity, theory of mind, social cognition, executive dysfunction, emotion regulation

[Abstract:0524] [Trauma, stress and related disorders]
Trauma and Grief

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Grief is a process provoked as a response to different losses, such as death, loss of job, relationship breakdown, some unexpected life events and changes, etc. The experiences of loss and bereavement are very individual. The responses to loss differ in people, but most important is the feeling of aloneness and helplessness. The period of grief is quite normal and is a very human response to loss. Grief is inevitable, but it also could last for a very long time. Even though loss is expected, the person feels traumatized, especially if death is provoked by violence, natural disasters, or war.

The 2023 Kahramanmaraş earthquake is a mass trauma that is expected to have a high psychological impact due to the facts that the earthquake was expected yet unprepared for, it was terrifying and very destructive. With the earthquake, situations occurred that could result in loss and therefore mourning in many areas of human life. Loss of living space, loss of social environment, job and financial losses, loss of perception of security and belief that the world is a safe space, loss of friends, loss of neighbors, loss of first-degree relatives, loss of children and multiple losses at the same time.

As a result, the grief reaction of someone who has been exposed to trauma and experienced many losses at the same time may be expected to be complicated and prolonged. Indeed a meta-analysis of articles reported high rates of prolonged grief disorder (40- 50%) in people after earthquakes and tsunami. So that this earthquake has provoked intensive reactions of grief, reactions which could persist for years.

In fact, after devastating traumas such as earthquakes, the onset of grief may be delayed, which can further complicate the grief process. Factors that prolong the trauma process, such as the earthquake being very destructive and distributed over a wide area, experiencing intervention and rescue problems afterwards, providing social support and security, and aftershocks, also delayed the grief and paved the way for it to become complicated. Post-traumatic stress disorder (PTSD), depressive disorder, anxiety disorders, as well as traumatic and prolonged grief reaction are the result of an earthquake that need to be investigated and intervened in detail. In this presentation, it is aimed to evaluate the grief process that develops especially around trauma, in the light of literature information.

Keywords: trauma, earthquake, grief, prolonged grief disorder, PTSD.

[Abstract:0525] [Attention deficit hyperactivity disorder (ADHD)]

Neural mechanisms of reward processing in adults with Attention-Deficit/ Hyperactivity Disorder

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The prevailing view is that ADHD is characterized by deficits in different cognitive domains. In addition to executive functions, deficits are observed in reward processing, temporal processing and timing, speech and language, memory span, processing speed, response time variability, arousal/activation, and motor control tasks [1,2]. Among the known cognitive impairments in ADHD cases, the behavioral and neural aspects of reward processing are of particular interest. Reward processing is a central aspect of human behavior and refers to all processes that regulate behavior on the basis of reward. ADHD is a condition marked by alterations in the reward system and is often associated with other mental disorders, indicating potential shared neurobiological mechanisms. Reward processing in ADHD, compared to healthy controls, is characterized by a preference for small but immediate rewards above larger but delayed rewards, and increased reward-induced effects on cognitive task performance [3]. Behavioral changes in reward processing in ADHD are associated with abnormal signaling in the brain structures believed to regulate reward processing. These structures include mesolimbic and mesocortical brain circuits consisting of midbrain, ventral striatum (VC), anterior cingulate cortex (ACC) and orbitofrontal cortex (OFC). Several imaging methods have revealed that ADHD is linked to alterations in the neural circuitry responsible for processing rewards. Structural investigations have demonstrated a decrease in volume in both the VS and the Prefrontal Cortex (PFC). Studies examining the functional aspects of reward processing have consistently uncovered evidence of altered functioning in adults with ADHD. This primarily includes reduced brain responses when anticipating rewards in the Ventral Striatum (VS) and irregular signaling during reward receipt in the Orbitofrontal Cortex (OFC).
In individuals with ADHD, there are noticeable differences in brain activity in comparison to control participants when it comes to anticipating and receiving rewards. Additional research exploring reinforcement learning and other reward-related manipulations like temporal discounting or rewarded continuous performance also consistently reveal abnormal activations in these same brain regions in individuals with ADHD. The varying results in various researches indicate that ADHD has a neurocognitively heterogeneous structure. Conducting translational studies is essential for characterizing the functional architecture related to reward processing and other dimensions of behavioral control. Moreover, these studies are crucial for gaining insights into the relationship between these neural networks and ADHD. The aim of this presentation is to discuss the neurobiological mechanisms related to ADHD and the reward system in light of current literature.

Keywords: ADHD, reward system, reward processing, neural mechanism

REFERENCES

1. Luman M, Tripp G, Scheres A. Identifying the neurobiology of altered reinforcement sensitivity in ADHD: a review and research agenda. Neurosci Biobehav Rev 2010;34:744-754.
2. Kuntsi J, Klein C. Intraindividual variability in ADHD and its implications for research of causal links. Curr Top Behav Neurosci 2012; 9:67–91.
3.Sonuga-Barke EJS. Psychological heterogeneity in AD/HD-a dual pathway model of behaviour and cognition. Behav Brain Res 2002; 130:29–36.

[Abstract:0526] [Others]

Approach to Child and Adolescent Patients in Inpatient Service: Inpatient Service Conditions and Hospitalization Indications

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Worldwide, 20% of children and adolescents have mental disorders, with a quarter of these youth having severe conditions. Inpatient child and adolescent mental health services (CAMHS) are of great importance in the treatment of severe mental disorders that cannot be treated on an outpatient basis. The advantages and disadvantages of separating youth from the community for treatment are a topic of discussion. There is also controversy around involuntary treatment in mental health. Despite all the debates and opposing views, inpatient institutions continue to play an important role in the psychiatric treatment of children and adolescents in need. Indications for admitting a young person to an inpatient psychiatry unit include life-threatening situations (suicidal or homicidal risk), inadequate response to all other outpatient treatment options or refusing treatment in cases of severe mental health conditions, situations where the child needs to be separated from the environment/family to be treated (in cases of severe neglect, abuse or shared psychosis) and for diagnostic purposes in complex cases.

To minimize the disadvantages and maximize the benefits of an inpatient stay, recent guidelines should be carefully studied (such as the NICE Treatment Guidelines and the Quality Network of Inpatient Child and Adolescent Mental Health Services (QNIC)). Following the guidelines, treatment plans in inpatient CAMHS should be designed considering the social, behavioral, developmental, and psychological status of young people. Treatment goals should be measurable, attainable, and appropriate for all developmental areas of the child or adolescent. A multidisciplinary team of mental health professionals, parents, and the young person should work in harmony towards these treatment goals. Care should be taken to obtain consent and provide information during the entire examination and treatment process. The service should be designed and managed in a way that respects the rights, privacy, and dignity of young people. In this oral presentation, recent guidelines will be discussed in detail, providing examples from Turkiye's largest CAMHS inpatient service in Istanbul Bakirkoy Mazhar Osman Mental Health and Neurological Diseases Research and Training Hospital. Currently the inpatient CAMHS in Bakirkoy is a closed psychiatry ward that has 28 beds in total. The most common diagnoses among the youth admitted to Bakirkoy inpatient CAMHS are bipolar disorder, depression, acute psychotic episode, behavioral disorder and autism spectrum disorder, in order.

Keywords: inpatient service, child and adolescent psychiatry, mental health hospital

References

Lucas H (2021). Quality Network for Inpatient CAMHS Standards for Services Eleventh Edition.
Read M, McKee M (2023). Quality Network for Inpatient CAMHS Cycle 21 Annual Report 2021-22.
NICE (2017). National Institute for Health and Care Excellence, Transition between Inpatient Mental Health Settings and Community or Care Home Settings Guidance.
Karaçetin G (2016) Yataklı Tedaviler. Çocuk ve Ergen Ruh Sağlığı ve Hastalıkları içinde,
A. Pekcan ve E. S. Ercan (ed) Çocuk ve Genç Psikiyatrisi Derneği Yayınları, Ankara,s: 676-685
Karacetin G, Varol Tas F, Cakin Memik N, Senturk B, Bayrak A, Uneri OS, Ozbaran B, Soylu N, Erdogan A, Guvenir T, Vural P, Cop E, Kose S. The Characteristics of Child and Adolescent Inpatient Psychiatry Services in Turkey. Bulletin of Clinical Psychopharmacology 2013;23(Suppl. 1):S283.

[Abstract:0527] [Others]

Remembered cases in the inpatient service

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Bakirkoy Prof. Dr. Mazhar Osman Research and Training Hospital, Department of Child and Adolescent Psychiatry Inpatient Clinic is one of the largest child and adolescent psychiatry inpatient services in Turkiye. We have treated a large number and a wide variety of children and adolescent cases from all over from our country, as well as international patients, since our establishment. Some cases were quite memorable both in terms of their clinical presentation and their difficulty in treating process during our clinic's history. In this presentation three remembered cases from the year of 2022 will be discussed.

Our first case is a 17 years old female patient, lives in a small village with her family, diagnosed with mild mental retardation. She was referred to our psychiatry department with the complaints of delusions, hallucinations, disorganized speech and movements like trying to eat a dead bird, raw meats, her own excretions, also with irritable mood and homicidal behaviours for about 2 years. Her brother has been diagnosed with Schizophrenia as well and treated with Electroconvulsive Therapy at our hospital years before. After clinical evaluation, a diagnosis of Early Onset Schizophrenia was made. She received combined treatment as nine sessions of bilateral Electroconvulsive Therapy and antipsychotic medication, resulting in significant remission of symptoms. She was discharged on olanzapine 30 mg, risperidone 4 mg, chlorpromazine 150 mg and biperiden 4 mg after hospitalized for 29 days.

Our second case is a 16 years old female patient, who has been operated for ependymoma when she was 3 years old, also diagnosed with mild mental retardation. She was referred to our psychiatry department with the complaints of severe self mutilated behaviours such as swallowing keys, coins, pieces of glass, stones, harming her vulva and vagina with a knife, a piece of glass and a rusty knitting needle, suicidal acts and depressive symptoms. Her symptoms have been started after the loss of her sister to malign melanoma 6 months before. After clinical evaluation, diagnosis of Attention Deficit Hyperactivity Disorder, Prolonged Grief Disorder and Major Depressive Disorder were made. She received combined treatment as psychopharmacological and cognitive behavioral treatment, resulting in significant remission of symptoms. She was discharged on quetiapine 450 mg, risperidone 3 mg, sertraline 100 mg and atomoxetine 25 mg after hospitalized for 13 days.

The last case of our presentation is a 17 years old male patient, had symptoms of food refusal, mutism, negativism, posturism, delusions, self harm, homicidal acts, obsessions, compulsions with no insight. His first neuropsychiatric complaints have been started with contamination obsessions and cleaning compulsions 3 years ago. Religious obsessions and compulsive rituals have been added to his complaints in last year. When he was referred to our psychiatry department, he has been suffering from thought blocking, unable to eat because of his auditory hallucinations and hitting himself to stop the voices "in his head". After clinical evaluation, diagnosis of Schizophrenia with Obsessive-Compulsive Symptoms was made. His clozapine treatment stopped due to inefficiency. His clomipramine dose increased to 300 mg daily and started on aripipirazole, titrated up to 20 mg. Although his negative symptoms, suicidal and homicidal behaviours are in remission, his compulsive rituals are ongoing and he has no insight. His hospitalization is still continuing.

Similar cases have been found in the literature as mentioned above(1-3). This presentation is intended to discuss managing these cases' treatments based on our clinic's experience and sharing the idea of how we may encounter diverse cases as health workers in the field of child and adolescent psychiatry.

Keywords: child and adolescent inpatient clinic, early onset schizophrenia, genital self-mutilation, schizo-obsessive disorder

References

1. Poyurovsky M, Faragian S, Shabeta A, Kosov A. Comparison of clinical characteristics, co-morbidity and pharmacotherapy in adolescent schizophrenia patients with and without obsessive-compulsive disorder. Psychiatry Res. 2008 May 30;159(1-2):133-9. doi: 10.1016/j.psychres.2007.06.010. Epub 2008 Apr 11. PMID: 18406469.
2. Fekih-Romdhane F, Cheour M. A rare case report of teen-onset pica in a female patient with a clinical high risk for psychosis. Early Interv Psychiatry. 2022 Jul;16(7):808-811. doi: 10.1111/eip.13214. Epub 2021 Aug 23. PMID: 34427054.
3. Baguelin-Pinaud A, Seguy C, Thibaut F. Les conduites automutilatrices: étude portant sur 30 patients [Self-mutilating behaviour: a study on 30 inpatients]. Encephale. 2009 Dec;35(6):538-43. French. doi: 10.1016/j.encep.2008.08.005. PMID: 20004284.

[Abstract:0528] [Psychopharmacology]
The Place of Genetics in the Treatment of Schizophrenia

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Schizophrenia is a neurodevelopmental disease with a higher heritability rate and is often chronic. It is diagnosed solely based on psychiatric symptoms such as perception disorders, behavioral changes, delusions, hallucinations and difficulties in cognitive functions. Diagnostic tests and biomarkers for the disorder are not available. The fact that the heritability of this disorder is 70-80% reveals that genetics plays an important role in its etiology. With the development of technology, genetic research has made progress in understanding the genetics and pharmacogenomics of schizophrenia.
Pharmacogenomics biomarkers could be a potential tool for the treatment of such traits where there is variability in inter-individual response to drug metabolism and with high explained genetic heritability. Furthermore, genomic heterogeneity is also an important factor contributing to interindividual variability in antipsychotic treatment outcomes. At the same time, genetic polymorphism also affects therapeutic response as well as side effects. To overcome this variability in drug response, pharmacogenomics plays an important role in identifying new genomic biomarkers (variations) sensitive to drug response or drug dosages or side effects. In a study that analyzed the polygenic risk score (PRS) in symptoms and response to treatment in schizophrenia, it was reported that patients with high PRS had greater improvement in symptoms after risperidon treatment. CYP1A1 has been confirmed as one of the significant genes observed to be associated with olanzapine concentration in plasma by a genome-wide association (GWAS). It has been reported that there is an association between the C allele of the Rs2472297 polymorphism of the CYP1A1 gene and poor olanzapine metabolism. In those carrying this allele, olanzapine may have higher drug concentrations, a higher risk of side effects, and may be less successful in treating schizophrenia. It has been reported that Dcc deletion plays a critical role in the emergence of SCZ-related behaviors. Olanzapine did not rescue SCZ-associated behaviors and glutamatergic dysfunction caused by Dcc deletion. This suggests that Dcc is required for the antipsychotic effects of olanzapine on SCZ-related behaviors. The regulator of G-protein signaling 4 (RGS4) gene is a risk gene for schizophrenia. The expression level is decreased in the frontal cortex in patients. It regulates the activity of dopamine, acetylcholine and serotonin receptors. RGS4 is the target of antipsychotic drugs, and a decrease in the amount of this protein is observed in patients. However, RGS4 variants have shown functional evidence to play a role in the effectiveness of antipsychotic treatment in schizophrenia. Similarly, it has been reported that risperidone metabolism is low in individuals carrying the T allele of the rs2842030 polymorphism of the RGS4 gene. Decreased metabolism of risperidone has been associated with TT and GT genotypes; It has been suggested that this may lead to higher drug concentrations and increased side effects.
In conclusion; it is thought that in the future, pharmacogenetic tests may play an important role in clinical decision-making regarding schizophrenia drug management.

Keywords: schizophrenia, genetics, treatment, antipsychotic, pharmacogenetics

[Abstract:0530] [Others]

Common Mental Health Problems in Early Childhood, Diagnostic Systems (DC:0-5) and Period-Specific Difficulties

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The first years of life present challenges for psychopathology research. One of these challenges is the differences in what is developmentally abnormal and normal. Expectations about age-appropriate behavior are based on various developmental theories or generally accepted milestones in physical development. In 1992, observation and assessment techniques, as well as evaluation of emotional, motor, sensory, language, cognitive, interactive and parent and family functions were described. Another difficulty in diagnosis is the multifactorial nature of infant psychopathology. It is important to consider environmental and organic factors when evaluating infants; Some important factors include the baby's neurological and physical functioning, the variable rate at which development occurs, and the parent-infant relationship. Another difficulty of this period is the absence or limited verbal communication2. The clinician communicates indirectly with the patient and must carefully observe the patient's behavior. The lack of a common language for diagnosis is one of the difficulties in the psychopathology evaluation process in the first years of life. Developmental features in early childhood may cause differences in clinical appearance. It is difficult to apply the diagnostic criteria in the classification system to young children.
Standard nosologies of psychiatric disorders have been developed, including alternative nosologies DC:0-3R and DC:0-5, which modify existing criteria to accommodate developmental differences in young children's symptom manifestation

and define disorders specific to early childhood. However, in clinical practice, the classification of early childhood psychopathology is mostly based on DSM and ICD.
DC diagnostic system evaluates in five axes. These axes are within the scope of clinical disorders, relational context, physical health conditions and considerations, psychosocial stressors and developmental competence, respectively. In the Axis 1 clinical disorders group, there are categories such as neurodevelopmental, sensory precessing, anxiety, mood, obsessive compulsive and related disorders, sleep-eating and crying disorders, trauma-stress and deprivation disorders, and relational disorders. The revisions made in DC:0-5 were as follows. “Feeding Behavior Disorders” have been renamed “Eating Disorders of Infancy/Early Childhood”.The number of defined disorders in this category has been substantially reduced and clustered. Numerical codes for DC:0–5 Clinical Disorders are provided to facilitate inclusion of DC:0–5 disorders in health care delivery and electronic medical records. Extensive revisions have been made to Axis II. The axis now includes two parts: a rating of the level of adaptation of the primary caregiving relationship(s) and a rating of the level of adaptation of the caregiving environment. Axis III has been expanded to include illustrative examples of medical conditions that should be noted. Axis IV has added categories and some specific stressors. Axis V has been extensively revised to focus on developmental competencies.
There is confidence in the use of separate categories to describe psychiatric disorders. However, there are also studies arguing that disordered behavior exists on a continuum and that current nosologies' reliance on a categorical model ignores the evidence about heterogeneity that is frequently encountered in the clinical field. At this early stage of research on infantile psychopathology, neither a dimensional nor a categorical approach has demonstrated clear superiority over the other.

Keywords: Early childhood, Infancy, Preschool, Diagnostic classification, Nosology, Psychopathology.

References

1. Finsaas MC, Kessel EM, Dougherty LR, Bufferd SJ, Danzig AP, Davila J, Carlson GA, Klein DN. Early Childhood Psychopathology Prospectively Predicts Social Functioning in Early Adolescence. J Clin Child Adolesc Psychol. 2020 May-Jun;49(3):353-364.
2. Zeanah Ch, Carter As, Cohen J, Egger H, Gleason Mm, Keren M, Lieberman A, Mulrooney K, Oser C. Dıagnostıc Classıfıcatıon Of Mental Health And Developmental Dısorders Of Infancy And Early Chıldhood Dc:0-5: Selectıve Revıews From A New Nosology For Early Chıldhood Psychopathology. Infant Ment Health J. 2016 Sep;37(5):471-5.
3. Eppright TD, Bradley S, Sanfacon JA. The diagnosis of infant psychopathology: current challenges and recent contributions. Child Psychiatry Hum Dev. 1998 Summer;28(4):213-22. doi: 10.1023/a:1022616130506.

[Abstract:0533] [Attention deficit hyperactivity disorder (ADHD)]
Differential Diagnosis of Attention Deficit and Hyperactivity Disorder with Emotional Dysregulation

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Emotional dysregulation (ED) is an impaired ability to control emotional response, leading to extreme reactions that are inappropriate with the situation. Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common childhood neurodevelopmental psychiatric disorder, characterized by inattention, hyperactivity and impulsivity. Lately researches have indicated that emotional dysregulation is also a core feature of ADHD and a significant contributor to the functional impairment in multiple areas including, education, legal, financial, family life and social relations. ED has also seen at the other psychiatric disorders that might frequently co-occur with ADHD, such as; bipolar disorder (BD), major depressive disorder(MDD), oppositional defiant disorder(ODD), disruptive mood dysregulation disorder (DMDD), borderline personality disorder(BPD) and anxiety disorders. Although many youth with ADHD have comorbid diagnosis, it is considered that there is a subgroup of youth with ADHD who have ED in the absence of comorbidities. This text includes key points that may help in the differential diagnosis of children with emotional dysregulation.
Children with ADHD who frequently express anger and defiance have often been diagnosed with ODD. Indeed, ADHD and ODD frequently co-occur at a rate of 30–50 % among children. Children with ODD have problems at regülating negative emotions. But children with ADHD also have problems at regülating positive emotions, such as excitement. Also in ADHD, children can exhibit ED in the absence of attempts to deliberately annoy others, defiance, refusal to comply with rules or even blaming others for an emotionally arousing stimulus (i.e., symptoms of ODD).
Children with ADHD exhibit chronic patterns of ED, whereas those with BD and MDD exhibit episodic variation of ED. In mood disorders, symptoms that are often apparent during manic episodes (i.e. elation, decreased need for sleep, and grandiosity) and depressive episodes (i.e. psychomotor retardation, fatigue or loss of energy, hypersomnia, loss of interest in pleasure, and thoughts of death/suicidality) are not part of the ADHD syndrome.
BPD and adolescents with ADHD have similar features, such as; chronic trait-like course, emotional instability, impulsivity, disturbed interpersonal relationships and risk taking behavior. Another characteristic of BPD is a tendency

to resort to self-injurious behavior and it isn't a feature of ADHD. ADHD may also be differentiated from BPD by the age of onset. ADHD symptoms should be present before the age of 12 years although the first symptoms of BPD usually become apparent later in life, often during late adolescence and early adulthood.
In DMDD children have severe, recurrent (at least three times a week) temper outbursts that are out of proportion to the situation, inconsistent with developmental level. Also they have persistent angry or irritable mood, most of the day. The episodic rages and persistent irritability of DMDD differ from the flashes of high emotional intensity followed by a return to a euthymic 'baseline' that most children with ADHD experience.

These informations shows that, making the differential diagnosis of whether emotional dysregulation occurs due to ADHD or another psychiatric disorder seems crucial for the appropriate treatment.

Keywords: ADHD, emotional dysregulation, differential diagnosis, ODD, mood disorder

References

1. Bunford, N., Evans, S. W., & Wymbs, F. (2015). ADHD and emotion dysregulation among children and adolescents. Clinical child and family psychology review, 18, 185-217.
2. Faraone, S. V., Rostain, A. L., Blader, J., Busch, B., Childress, A. C., Connor, D. F., & Newcorn, J. H. (2019). Practitioner Review: Emotional dysregulation in attention-deficit/hyperactivity disorder–implications for clinical recognition and intervention. Journal of Child Psychology and Psychiatry, 60(2), 133-150.
3. Asherson, P., Young, A. H., Eich-Höchli, D., Moran, P., Porsdal, V., & Deberdt, W. (2014). Differential diagnosis, comorbidity, and treatment of attention-deficit/hyperactivity disorder in relation to bipolar disorder or borderline personality disorder in adults. Current medical research and opinion, 30(8), 1657-1672.

[Abstract:0534] [Addiction Psychiatry]

Efficacy, Safety and Side Effects of TMS Application in Alcohol, Drug and Smoking Addiction

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Substance Use Disorder (SUD) is a chronic and relapsing disease characterized by craving, loss of control, tolerance and physical dependence. At present, the combination of pharmacotherapy and psychosocial intervention is the most effective management strategy in preventing relapse to reduce dropout rates and promote abstinence in SUD patients. However, only few effective medications are available. Transcranial Magnetic Stimulation (TMS) is a non-invasive brain stimulation technique that modulates the cellular activity of the cerebral cortex through a magnetic pulse applied on selected brain areas. Recently, the efficacy of TMS has been investigated in various categories of SUD patients. The present review analyzes the application of repetitive TMS in patients with alcohol, tobacco and drug use disorder (1).
The biological mechanisms guiding initiation, dependence, and relapse to drugs, however, are not limited to the dopamine-rich areas of the striatum. The cortical areas that have afferent and efferent connectivity with the striatum are also critical to cue-induced craving and compulsive drug taking. The executive control network, including the dorsolateral PFC (DLPFC), the posterior parietal cortex, and the dorsal cingulate cortex, governs and regulates action patterns, decision making, and self-control. In addition, the ventral PFC network, including the medial PFC (mPFC), the orbitofrontal cortex (OFC), the insular cortex, and the ventral anterior cingulate cortex, modulate limbic arousal and emotion processing. An imbalance of these two systems is thought to contribute to the vulnerability to develop and relapse into SUDs. Considered together, this body of work indicates that there are many potential therapeutic targets for rTMS in the SUD field.
The interest in developing TMS as a tool for addiction treatment was undoubtedly magnified by the influential findings of Strafella and colleagues (2001), wherein they demonstrated that there is a causal relationship between TMS of the prefrontal cortex and dopamine binding in the caudate nucleus. This was further strengthened by the results from Zangen and colleagues (2002) demonstrating that TMS increases extracellular dopamine and glutamate in the ventral striatum. A full review of the effects of TMS on glucose, cerebral blood flow, and dopamine in the brain is presented by Kinney and Hanlon (2022).
As knowledge about the neural networks involved in maintaining and breaking the cycle of drug use, abstinence, and relapse continues to develop, there is growing enthusiasm for a neural-circuit-based intervention for treating SUDs. TMS is one of the most promising treatments given its ability to modulate the neural circuits involved in cue reactivity and executive control, as well as the recent approval of a unique form of TMS for short-term smoking cessation treatment. Multiple converging lines of evidence support the use of TMS for alcohol use disorder and drug use disorder (2).
The optimal frequency, number of sessions and hemisphere targeted may vary with the drug or alcohol addiction and needs further investigation. Although the number of clinical studies is still limited, repetitive TMS yields encouraging results in these patients, suggesting a possible role of TMS in the treatment (3)

Resources
1. Antonelli, M., Fattore, L., Sestito, L., Di Giuda, D., Diana, M., & Addolorato, G. (2021). Transcranial magnetic stimulation: a review about its efficacy in the treatment of alcohol, tobacco and cocaine addiction. Addictive behaviors, 114, 106760. doi: 10.1016/j.addbeh.2020.106760
2. Harmelech, T., Hanlon, C. A., & Tendler, A. (2023). Transcranial Magnetic Stimulation as a Tool to Promote Smoking Cessation and Decrease Drug and Alcohol Use. Brain Sciences, 13(7), 1072. doi: 10. 90/brain33sci13071072.
3. Barr, M. S., Farzan, F., Wing, V. C., George, T. P., Fitzgerald, P. B., & Daskalakis, Z. J. (2011). Repetitive transcranial magnetic stimulation and drug addiction. International review of psychiatry, 23(5), 454-466. doi: 10.3109/09540261.2011.618827.

Keywords: TMS, Alcohol, Drug, Smoking

[Abstract:0535] [Attention deficit hyperactivity disorder (ADHD)]
Eye-Tracking in Attention-Deficit/Hyperactivity Disorder

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Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most prevalent neurodevelopmental childhood disorders, which encompasses inattention, impulsivity, and overactivity resulting in significant functional impairment (APA, 2013). Eye-tracking technology has emerged as a promising tool for the assessment of ADHD 2. Eye-tracking devices can capture and analyze gaze patterns, providing objective and quantitative data on visual attention and processing in individuals with ADHD 3. Prior researches have demonstrated that the eye-tracking approach serves as a non-invasive methodology for objectively and reliably assessing specific domains, such as attention networks and inhibition control, in ADHD populations 2. Growing attention has been recently paid to the use of eye movements, assessed with eye-tracking systems, as possible biomarkers of ADHD 2. Eye-tracking studies in ADHD have focused on the oculomotor control 4, attentional bias towards social scenes 5, visual attention during emotional knowledge task 3, change detection and visual search 6, visuo-spatial working memory 7 and joint-attention ability 8. Researches have shown that individuals with ADHD exhibit differences in eye movements compared to typically developing individuals, such as longer fixation durations and shorter saccade lengths, suggesting poor fixation capability and oculomotor control in the ADHD group 4. Additionally, it has been indicated that children with ADHD have difficulties in emotion recognition 9, joint attention deficits 8, and poor sustained attention performance 10. Besides exhibiting limited attentional bias for faces 9, atypical face scanning strategies have also been documented in children with ADHD 8. Furthermore, eye-tracking technology has been used to study the effects of ADHD medication on visual attention and to develop new interventions to improve cognitive inhibitory control in children and adolescents with ADHD 4,9. However, there is a scarcity of research on the use of eye-tracking technology in the diagnosis and treatment of ADHD, and further research is needed to validate its clinical utility and to develop standardized protocols for its use in clinical settings. In conclusion, while the findings of researches remain inconclusive, eye-tracking holds promise as a potentially valid tool for clinicians in the identification of specific biomarkers to guide ADHD diagnosis and determine optimal intervention strategies.

Keywords: eye-tracking, attention-deficit hyperactivity disorder, neurodevelopmental disorder, biomarker

References
1. Association AP AAP. Diagnostic and statistical manual of mental disorders: DSM-5. Arlington, VA. Published online 2013.
2. Levantini V, Muratori P, Inguaggiato E, et al. EYES are the window to the mind: Eye-tracking technology as a novel approach to study clinical characteristics of ADHD. Psychiatry Res. 2020;290:113135.
3. Serrano VJ, Owens JS, Hallowell B. Where children with ADHD direct visual attention during emotion knowledge tasks: Relationships to accuracy, response time, and ADHD symptoms. J Atten Disord. 2018;22(8):752-763.
4. Bucci MP, Stordeur C, Septier M, Acquaviva E, Peyre H, Delorme R. Oculomotor abnormalities in children with attention-deficit/hyperactivity disorder are improved by methylphenidate. J Child Adolesc Psychopharmacol. 2017;27(3):274-280.
5. Pishyareh E, Tehrani-Doost M, Mahmoodi-Gharaie J, Khorrami A, Joudi M, Ahmadi M. Attentional bias towards emotional scenes in boys with attention deficit hyperactivity disorder. Iran J Psychiatry. 2012;7(2):93.
6. Türkan BN, Amado S, Ercan ES, Perçinel I. Comparison of change detection performance and visual search patterns among children with/without ADHD: Evidence from eye movements. Res Dev Disabil. 2016;49:205-215.
7. Wainstein G, Rojas-Líbano D, Crossley NA, Carrasco X, Aboitiz F, Ossandón T. Pupil size tracks attentional performance in attention-deficit/hyperactivity disorder. Sci Rep. 2017;7(1):1-9.

8. Temeltürk RD, Aydın Ö, Güllü BÜ, Kılıç BG. Dynamic eye-tracking evaluation of responding joint attention abilities and face scanning patterns in children with attention deficit hyperactivity disorder. Dev Psychopathol. Published online 2023:1-12.
9. Airdrie JN, Langley K, Thapar A, van Goozen SHM. Facial emotion recognition and eye gaze in attention-deficit/hyperactivity disorder with and without comorbid conduct disorder. J Am Acad Child Adolesc Psychiatry. 2018;57(8):561-570.
10. Yıldırım Demirdöğen E, Esin İS, Turan B, Dursun OB. Assessing sustained attention of children with ADHD in a class flow video task. Nord J Psychiatry. Published online 2022:1-10.

[Abstract:0536] [Psychotherapy]

The approach from cognitive behavioral and 3rd wave therapies perspective to aggression in children and adolescents

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The approach from cognitive behavioral and 3rd wave therapies perspective to aggression in children and adolescents Aggression in children and adolescents is a common transdiagnostic symptom associated with a variety of mental and developmental disorders, and aggressive behavior is a common symptom in most psychiatric disorders. Aggressive children have intense negative effects on those who interact with them, as they victimize their peers, disrupt teachers' instructional activities, and parents are unable to control the challenging and provocative behavior of these children. therefore, aggressive children are referred to mental health services at higher rates than children with most other types of psychopathology [1].
There are different types of treatments for treating aggression. Cognitive Behavioural Therapy (CBT) is one of the most extensively researched forms of psychotherapies and focuses on establishing a therapeutic relationship, behavior change strategies, cognitive restructuring, changing core beliefs and schemas, and preventing relapses and relapses. CBT addresses the deficient and distorted social-cognitive processes in aggressive children including distortions in their perceptions of others' and their own behavior, biases in their attribution of the hostile intention of others, overreliance on nonverbal direct action solutions, and underreliance on verbal assertion and verbal negotiation solutions. CBT for aggressive children generally consists of three core elements: management of anger, problem-solving skills training (PSST) and social skills training. Management of anger involves children learning to monitor their anger and other emotions. In response to emotional arousal, children are taught to reappraise cognitions and engage in relaxation strategies. Children who are aggressive are more likely to perceive a social interaction as hostile and react with aggression. PSST teaches aggressive children to reappraise social situations and utilise nonaggressive techniques to resolve perceived hostile situations. Social skills training focuses on developing skills to form friendships and to behave assertively without using aggression. Significant parental time and support is needed to provide consistency in attending appointments and practicing at skills [2]. Since the early 2000s, a new approach to this type of therapy, known as the third wave therapies, Dialectical Behavior Therapy (DBT) and Acceptance and Commitment Therapy (ACT), alongside with Mode Deactivation Therapy (MDT), are derivatives of CBT and are characterised by "contextual concepts focused more on the person's relationship to thought and emotion than on their content". In third wave therapies, cognition is argued not to directly cause distress, therefore, acceptance- and mindfulness-based approaches do not attempt to alter or control thought content. Rather, these therapies propose that attempting to control unwanted thoughts, feelings and events can exacerbate distress and lead to maladaptive behaviours Currently these three types of therapy have been showing an increased amount of success with adolescent youth who have been suffering from disorders such as Conduct Disorder, post-traumatic stress symptomology, and other mood disorders [3]. In this presantation, we want to discuss the approach from cognitive behavioral and third wave therapies perspective to aggression in children and adolescents.

Keywords: Children and adolescent, aggression, therapy

References

[1]. Bartels M., Hendriks A., Mauri M., et al. Childhood aggression and the co-occurrence of behavioural and emotional problems: results across ages 3–16 years from multiple raters in six cohorts in the EU-ACTION project. European child & adolescent psychiatry 2018; 27: 1105-1121.
[2]. Scott JG, Tunbridge M, Stathis S.The aggressive child. Journal of Paediatrics and Child Health, 2018; 54.10: 1165-1169.
[3]. Bass C., van Nevel J,Swart J. A comparison between dialectical behavior therapy, mode deactivation therapy,

cognitive behavioral therapy, and acceptance and commitment therapy in the treatment of adolescents. International Journal of Behavioral Consultation and Therapy, 2014; 9.2: 4.

[Abstract:0537] [Neuroscience: Neuroimaging-Genetic Biomarkers]
Eye Tracking in Autism Spectrum Disorder

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Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterized by impaired social interaction and communication, repetitive behaviors and limited interests. Although the severity of the symptoms on the spectrum varies, people with ASD may exhibit atypical/different behaviors in social settings, such as inappropriate, reduced, or prolonged eye contact, less mimicking in facial expressions, and atypical or unnatural speech.[1]
As with all neurodevelopmental disorders, early diagnosis is quite important for ASD. There is no single tool for diagnosing autism. Therefore, the diagnosis process is aided by observational and applied clinical tests, as well as information obtained from the family. However, in autism, each individual is unique and there are differences between individuals' intelligence levels and the severity and diversity of their symptoms. This prolongs the diagnostic process, resulting in a significant amount of time being required. Starting treatment right after diagnosis is crucial for long-term outcomes, particularly for brain neurodevelopmental processes. At this point, the presence of a biomarker that can serve as a factor, such as eye movements, becomes exceptionally important. Studies conducted so far have not yet identified a biomarker for ASD that is clinically reliable.
Problems in eye contact and response in social communication are prominent and common symptoms of autism. Eye tracking devices enable the impairments of eye contact to be investigated in individuals of different age groups and make possible to obtain objective data.[2] Divergent results have been reported in the studies that investigated oculomotor anomalies in ASD. An important finding is that patients with ASD show different fixation patterns than controls while observing complex social circumstances,[3] and saccade frequency of the patients with ASD increase in the absence of a visual input.[4]
Individuals with ASD experience difficulties in social communication. Therefore, studies on eye movements are mainly aimed at understanding the components within social cognition. Social attention, understanding the differences between social and non-social stimuli, and analyzing in which regions the eye fixations are concentrated in the picture / photograph shown can be stated as the prominent methodologies in the studies. It seems that experiments without social stimuli are more constrained.[5]
ASD is defined as a spectrum disorder because the severity and variety of symptoms changes from person to person. Since each person has unique characteristics in ASD, small details can have a great effect. This could be achieved only with high-resolution data recording and ecologically valid experiments where social interaction can be evaluated as close to real life. Eye tracking technology makes it possible to explore these details. In addition, eye tracking technology is accepted as a promising imaging method with significant potential in both diagnosis and evaluation of ASD.[6]
In summary, eye movements/gaze are considered promising for the future as an objective, quantitative and non-invasive biomarker associated with difficulties in social communication in individuals with ASD.

Keywords: Autism spectrum disorder, Eye-tracking, Eye Movements, Social Cognition

References

1. O'Connor K, Kirk I. Brief report: atypical social cognition and social behaviours in autism spectrum disorder: a different way of processing rather than an impairment. J Autism Dev Disord. 2008;38(10):1989-1997. doi:10.1007/s10803-008-0559-5
2. Setien-Ramos I, Lugo-Marín J, Gisbert-Gustemps L, et al. Eye-Tracking Studies in Adults with Autism Spectrum Disorder: A Systematic Review and Meta-analysis. J Autism Dev Disord. 2023;53(6):2430-2443. doi:10.1007/s10803-022-05524-z
3. Klin A, Jones W, Schultz R, Volkmar F, Cohen D. Visual fixation patterns during viewing of naturalistic social situations as predictors of social competence in individuals with autism. Arch Gen Psychiatry. 2002;59(9):809-816. doi:10.1001/archpsyc.59.9.809
4. Kemner C, Verbaten MN, Cuperus JM, Camfferman G, van Engeland H. Abnormal saccadic eye movements in autistic children. J Autism Dev Disord. 1998;28(1):61-67. doi:10.1023/a:1026015120128
5. Hamner T, Vivanti G. Eye-tracking research in autism spectrum disorder: What are we measuring and for what purposes? Current Developmental Disorders Reports. 2019;6(2):37-44. doi:10.1007/s40474-019-00158-w
6. Wei Q, Cao H, Shi Y, Xu X, Li T. Machine learning based on eye-tracking data to identify Autism Spectrum Disorder: A systematic review and meta-analysis. J Biomed Inform. 2023;137:104254. doi:10.1016/j.jbi.2022.104254

[Abstract:0538] [Others]
Approach to Child and Adolescent Patients in Inpatient Service- ECT Treatment in the Inpatient Service

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After being introduced at 1938 in Rome, Electroconvulsive Therapy (ECT) became a widely accepted treatment method among all age groups between 1940s and 1950s. Between 1960s-1980s as new psychopharmacological treatment modalities have invented with ethical concerns and the spread of anti-psychiatric attitudes from the counterculture into restrictive legislation, pediatric ECT becomes a rarity. In time, ECT was proven to be effective and safe therefore the restrictions are lessened throughout 2000s. Although the opinions of patients and family members about the ECT are favorable, because of inaccurate knowledge and bad depiction of the treatment in movies and other media (portrayals that are generally noxious, biased biographical accounts), ECT made society fearful and this patient population is stigmatized even by some health professionals. Informed consent should be obtained from patient's parents/legal guardian and ideally 'assent' should be taken from the minor. Definitive mechanism of action, up to date is still unknown. Theories regarding the mechanism of action are; Psychological theory, electrophysiological theory, neurohumoral theory, neuroendocrine theory, receptor theory, GABA release theory, neurogenesis theory. Neuroendocrine theory is the most supported theory. Neuroendocrine theory focuses on the hypothalamus, a brain region involved in the expression of emotions with profound control over the rest of the body through its actions on the pituitary gland. The hypothalamus and the pituitary gland produce hormones that circulate in the cerebrospinal fluid and bloodstream, affecting other glands in the body (including the thyroid, parathyroid, adrenal, pancreas, ovaries, and testes) and other parts of the brain. Repetitive grand mal seizures are needed for an effective ECT treatment. The seizures must be induced two to three times weekly. Clinical results are better when the EEG seizure occurs in both halves of the brain (full cerebral seizure) equally, and is of sufficient duration to show runs of high voltage slow waves mixed with spikes, followed by runs of high voltage slow waves and a sharp (precise) terminating end-point. Electroconvulsive therapy (ECT) is a low-risk procedure and no deaths have been reported in adolescents to date. Minor side effects are generally benign and transient, occur for hours or days following the ECT session. They include headache, nausea, vomiting and confusion. Anterograde amnesia is temporary and disappears in the weeks or months following ECT. The decision for ECT should be made after consultation with another psychiatrist. Psychiatric conditions that ECT is indicated are; mood disorders, schizophrenia spectrum disorders, catatonia, self-injurious behavior and malign neuroleptic syndrome. Since ECT should be used only after adequate implementation of pharmacological and psychological treatments, it is important to review all previous treatments. Besides treatment resistance, ECT can be offered in case of severe symptomatology and/or side effects to psychopharmacological agents. Full general medical evaluation should be done as ECT includes grand mal seizures which are induced with electrical currents under general anesthesia. Hence, all laboratory and neuroimaging examinations should be completed before ECT.

Keywords: Electroconvulsive therapy, inpatient psychiatry service, child and adolescent psychiatry, treatment resistance, grand mal seizure

[Abstract:0539] [Psychopharmacology]
Sublingual Dexmedetomidine for Agitation

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Guidelines for the management of agitation are heterogeneous. Priority is given to safety, behavioral interventions, and verbal de-escalation. It is advocated that physical restraint should be used as a last resort. Psychopharmacological treatment is used when behavioral interventions fail to prevent physical restraint. For acute agitation due to schizophrenia or bipolar disorder, oral antipsychotics or benzodiazepines are the first-line treatment, followed by intramuscular antipsychotics or benzodiazepines. An ideal drug for treating agitation should be noninvasive, easily administered by healthcare professionals or patient relatives, provide a rapid onset of action within 30 minutes, provide calmness without excessive sedation, and be safe and well tolerated (1). Dexmedetomidine, a selective α2-adrenergic receptor agonist, is thought to treat acute agitation associated with schizophrenia or bipolar disorder by activating presynaptic α2-adrenergic receptors to suppress hypersympathetic activity and reduce firing of locus coeruleus neurons. Sublingual dexmedetomidine was approved by the US Food and Drug Administration in 2022 to treat acute agitation in adults with schizophrenia and bipolar disorder. Sublingual or buccal administration of sublingual dexmedetomidine bypasses first-pass metabolism, resulting in increased absorption compared to oral administration and proving a rapid onset of action. Sublingual dexmedetomidine represents a novel mechanism of action and administration in treating agitation associated with schizophrenia or bipolar disorder. Sublingual dexmedetomidine has several advantages as a

treatment option for acute agitation in people with schizophrenia and bipolar disorder. Sublingual medications inherently pose less physical and psychological risk to patients than the intramuscular options commonly used in managing agitation. Sublingual dexmedetomidine does not have extrapyramidal side effects such as dystonia, akathisia, and tremors caused by antipsychotic use. Sublingual dexmedetomidine use also prevents potential stigmatization associated with antipsychotic use (2). The efficacy of sublingual dexmedetomidine in treating agitation was evaluated in 2 phase 3 randomized, double-blind, placebo-controlled studies. One study included 378 patients with bipolar I or II disorder, and the other included 381 patients with schizophrenia or schizoaffective disorder. In both studies, it was shown that a significant reduction in agitation was achieved after administration. It was found that no severe side effects were observed, and the most common side effect was mild somnolence (3). Clinical trial data suggest that sublingual dexmedetomidine may be a safe and effective treatment option for agitation in people with schizophrenia or bipolar disorder due to its different effects, such as rapid onset of action and the need for minimal repeat doses. Future clinical trials are needed to evaluate the effects of sublingual dexmedetomidine on hospital admission rates, length of hospital stay, concomitant medication use for agitation, and use of physical restraint.

Keywords: Agitation, Aggression, Dexmedetomidine

References

1. Martínez-Raga, J., Amore, M., Di Sciascio, G., Florea, R. I., Garriga, M., Gonzalez, G.,.. & Vidailhet, P. (2018). 1st international experts' meeting on agitation: conclusions regarding the current and ideal management paradigm of agitation. Frontiers in psychiatry, 9, 54.
2. BioXcel Therapeutics, author. IGALMITM (dexmedetomidine) sublingual film, for sublingual or buccal use [Internet] U.S. Food and Drug Administration; Silver Spring (MD): 2022. [cited at 2023 Aug 27]. https://www.accessdata.fda.gov/drugsatfda_docs/label/2022/215390s000lbl.pdf.
3. Smith, C. M., Santalucia, M., Bunn, H., & Muzyk, A. (2023). Sublingual Dexmedetomidine for the Treatment of Agitation in Patients with Schizophrenia and Bipolar Disorder. Clinical Psychopharmacology and Neuroscience, 21(2), 215.

[Abstract:0540] [Attention deficit hyperactivity disorder (ADHD)]
Use of Guanfacine for the Treatment of Attention Deficit Hyperactivity Disorder

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According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), Attention Deficit Hyperactivity Disorder (ADHD) is one of the most prevalent neurodevelopmental disorders. It is characterized by symptoms such as excessive levels of impulsivity, hyperactivity, and inattention that can have an impact on a child's or adolescent's academic, social, and personal functioning. The worldwide prevalence of ADHD for children has been estimated to be as high as 7-12%, making it one of the most common psychiatric disorders in children and adolescents. Children with ADHD may continue to experience symptoms into adulthood.
Although the precise etiology of ADHD remains unknown, most effective therapies facilitate catecholaminergic transmission, especially in the prefrontal cortex (PFC). The current recommended course of treatment for ADHD includes the use of both stimulant drugs like methylphenidate and amphetamines as well as non-stimulant drugs like atomoxetine. These medications are effective in decreasing symptoms of ADHD, but they can also have significant side effects.
The need for therapeutic alternatives is driven by the fact that 25-35% of patients do not receive a therapeutic benefit from psychostimulants because of inadequate symptom relief, intolerable side effects, or nonadherence. Children with ADHD may benefit from taking alpha-2 agonists, such as guanfacine and clonidine. The United States (US) Food and Drug Administration has given the GXR its approval for the treatment of ADHD in patients aged 6 to 17 years, either as a monotherapy or as a supplement to stimulants. These drugs specifically target the brain's alpha-2 adrenergic receptors, which can improve attention and lessen the symptoms of impulsivity and hyperactivity in children with ADHD. The selective 2A-receptor agonist guanfacine extended-release (GXR) is thought to directly engage postsynaptic receptors in the PFC, an area of the brain thought to play a significant role in attentional and organizational functions that have been associated with ADHD in preclinical research. Studies using functional neuroimaging show that guanfacine selectively and specifically activates the frontal and frontal association regions while 'turning down' or inhibiting striatal activity.

Alpha-2 agonists are useful in reducing the symptoms of ADHD in children. However, more research is still required to fully understand these medications' long-term efficacy and safety. It is unclear how Alpha-2 agonists affect growth, cardiovascular function, and other long-term adverse events. Despite these drawbacks, alpha-2 agonists are still a useful treatment option for ADHD in children, especially for those who cannot tolerate stimulant medications or who additionally have additional conditions like tic disorders.
In conclusion, Alpha-2 agonists have promise as a treatment for ADHD in children, but more research is needed to determine their long-term safety and effectiveness. It is necessary to conduct more research to determine the ideal dosage and length of treatment for these drugs when used to treat this disease.

Keywords: Attention Deficit Hyperactivity Disorder, Children and adolescents, Guanfacine, Alpha-2 agonists

References

1. Sallee, F.R. and K. Eaton, Guanfacine extended-release for attention-deficit/hyperactivity disorder (ADHD). Expert Opin Pharmacother, 2010. 11(15): p. 2549-56.
2. Neuchat, E.E., et al., The Role of Alpha-2 Agonists for Attention Deficit Hyperactivity Disorder in Children: A Review. Neurol Int, 2023. 15(2): p. 697-707.
3. Childress, A., A. Hoo-Cardiel, and P. Lang, Evaluation of the current data on guanfacine extended release for the treatment of ADHD in children and adolescents. Expert Opin Pharmacother, 2020. 21(4): p. 417-426.

[Abstract:0542] [Specific learning disabilities]
Eye Tracking Studies in Specific Learning Disorder

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Eye tracking is widely used to examine the reading, writing and math skills of students with specific learning disabilities. Because eye tracking is a powerful technique that can instantly present important information about an individual's cognitive skills[1]. Therefore, in this presentation, studies using eye tracking technique will be included in the examination of writing and math skills, especially reading skills, of students with specific learning disabilities.
One of the academic skills of students with learning disabilities examined by eye tracking is writing. Various studies have been conducted using the Eye&Pen software developed by Alamargot et al[2] simultaneously with eye tracking. By using parameters such as pause duration, letter fluency and lexical fluency in the research, comprehensive information about the writing skills of students with learning disabilities was obtained.

Mathematical skills of students with learning disabilities are also examined with eye tracking. Students' number line estimation strategies are examined with this technique[3–4]. Thus, by using the number line estimation skills of the students, important information is obtained especially about the diagnosis-assessment processes related to learning disabilities.
One of the academic skills of students with learning disabilities, which is examined by eye tracking, is reading. Studies are carried out in various languages to understand the nature of reading skills of students with specific learning disabilities (eg, German[5]). In addition, in recent years, eye tracking and machine learning have been used together to find biomarkers in dyslexia diagnosis-assessment processes in various languages (eg, Swedish[6]). Thus, significant progress has been made regarding both the diagnosis-evaluation and intervention processes of dyslexia.

Keywords: Eye Tracking, Eye Movement, Specific Learning Disorder, Children.

References

1. Rayner K, Pollatsek A, Ashby J, et al. Psychology of reading. Psychology. 2012.
2. Alamargot D, Chesnet D, Dansac C, et al. Eye and pen: A new device for studying reading during writing. Behavior Research Methods. 2006;38(2):287-299.
3. Van Viersen S, Slot EM, Kroesbergen EH, et al. The added value of eye-tracking in diagnosing dyscalculia: A case study. Frontiers in Psychology. 2013;4:679.
4. van't Noordende JE, van Hoogmoed AH, Schot WD, et al. Number line estimation strategies in children with mathematical learning difficulties measured by eye tracking. Psychological Research. 2016;80:368-378.
5. Hawelka S, Gagl B, Wimmer H. A dual-route perspective on eye movements of dyslexic readers. Cognition. 2010;115(3):367-379.

6. Benfatto MN, Seimyr GÖ, Ygge J, et al. Screening for dyslexia using eye tracking during reading. PloS One. 2016;11(12):1-16.

[Abstract:0543] [Schizophrenia and other psychotic disorders]

Follow-up of Schizophrenia Patients in the Perinatal Period: 'Pharmacotherapy, Risk-Benefit Assessment and Current Recommendations'

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Introduction
Schizophrenia presents unique challenges during the perinatal period, particularly in pregnant or postpartum women. Pharmacotherapy plays a pivotal role in managing schizophrenia. However, during this phase, it is imperative to carefully consider treatment options. A comprehensive risk-benefit assessment is essential, taking into account the potential effects of medications on both the mother and the developing fetus. Recent research has highlighted the importance of effective management, with up to 50% of women with schizophrenia experiencing relapses during this critical period. This presentation aims to review the latest research on the management of schizophrenia during the perinatal period and provide evidence-based recommendations.

Discussion
Pharmacotherapy is a cornerstone of perinatal schizophrenia treatment. Recent systematic reviews indicate that the risks associated with antipsychotic medication use during pregnancy are generally low. These risks may be outweighed by the benefits of preventing relapses and hospitalizations (Bergink et al., 2020). However, further research is needed to assess the long-term consequences of antipsychotic exposure during pregnancy. Some antipsychotics have been linked to an increased risk of conditions such as gestational diabetes, pre-eclampsia, and congenital malformations (Myles et al., 2021). Therefore, selecting medications with minimal harm to both the mother and fetus is crucial.
Balancing the risks and benefits of schizophrenia treatment during the perinatal period is of paramount importance. A comprehensive risk-benefit assessment is required to evaluate the severity of the maternal condition and potential risks to the developing fetus. The significance of transparent and continuous communication between the patient and healthcare provider cannot be overstated. Additionally, non-pharmacological interventions, such as psychotherapy and social support, are integral components of perinatal schizophrenia management (Amin et al., 2021). These interventions can improve the overall well-being of patients and reduce the incidence of relapse.
National and international psychiatric organizations have issued current guidelines and recommendations for managing schizophrenia during the perinatal period. Adherence to these guidelines has been associated with lower rates of adverse perinatal outcomes, including preterm birth and low birth weight (Amin et al., 2021). However, implementing these recommendations in clinical practice remains a challenge. Addressing this challenge necessitates heightened awareness, healthcare provider training, and improved access to resources and support for patients.

Conclusion
Effective management of schizophrenia during the perinatal period is crucial for preventing relapses and improving perinatal outcomes. Current evidence-based recommendations underscore the need for careful evaluation of treatment options, risk-benefit assessment, and ongoing patient monitoring. Additionally, non-pharmacological interventions can enhance the overall well-being of patients and reduce the incidence of relapse. Addressing the challenges associated with implementing these recommendations in clinical practice is essential to ensure adherence. Further research is necessary to advance knowledge, improve patient outcomes, and understand the long-term effects of antipsychotic exposure during pregnancy.

Keywords: schizophrenia, perinatal period, pharmacotherapy, teratogenicity

References
Amin R, Bressington D, Gray R, et al. A systematic review of interventions to improve adherence to schizophrenia treatment guidelines during perinatal period. BMC Psychiatry, 2021;21(1):1-12.
Bergink V, Burgerhout KM, Koorengevel KM et al. Treatment of psychosis and mania in the postpartum period. Am J Psychiatry 2020;177(4):276-83.
Myles N, New L and Myles H. (2021). Antipsychotic use in pregnancy: a systematic review and meta-analysis. Aust N Z J Psychiatry 2021;55(1):28-42.

[Abstract:0546] [Impulse control disorders]
Emotional Disregulation in Children and Adolescent

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Emotions are a set of feelings that enable us to adapt to our environment. These emotions emerge in response to pleasant or unpleasant internal and/or external stimuli. They assist us in mentally analyzing the stimulus and responding to it. Emotional regulation (ER) is the skill of recognizing, assessing, altering, and managing emotions in a personally and socially acceptable manner to maintain emotional control and achieve an adequate level of functionality [1]. This is achieved through various methods, such as acceptance, problem-solving, and reappraisal. In other words, it is the ability to apply strategies that involve awareness, understanding, accepting emotions, and flexibly modulating emotional responses. The aim of this presentation is to discuss how emotional regulation develops in children and adolescents and its relationship with psychopathologies.

Neurobiologically, basic emotions are modulated subcortically by the singular cortex, hippocampus, amygdala, and insular cortex, as well as frontal brain structures. ER neural circuits include the rostral and subgenual regions of the anterior singular cortex, orbitofrontal and dorsomedial prefrontal cortex (PFC), and areas involved in executive control and attention, such as the dorsal anterior singular, ventrolateral PFC, and dorsolateral PFC [2]. Acute and chronic stress can have long-term consequences, altering central nervous system structures and functionality, leading to enduring neurological, social, and behavioral functional impairments.

The skill of regulating emotions develops in early childhood and progresses through a process that begins from birth [3]. Infants start by distinguishing their emotional states (neutral, pleasurable, and unpleasurable) through interactions with caregivers and then learn that these states can be altered to varying intensities through self-control, self-soothing, or distraction. Most importantly, through interaction with a sensitive caregiver, they learn to recognize and understand emotions because this is a prerequisite for self-regulation. By the time children reach the age of 3, they begin to understand their emotions. Various processes, such as executive functions and language development, influence the development of ER. Children continue to develop skills such as searching, avoiding, directing attention, inhibiting impulses, and problem-solving until the age of seven. ER then continues to develop, and children become self-regulating. Internal and external factors determine the effectiveness of ER: Internal factors include neural regulatory reactivity, temperament, cognitive abilities, and attachment, while external factors relate to caregiving styles, behavior models, and experiences.

Emotion Dysregulation Disorder arises when ER strategies and processes are disrupted, leading to maladaptive processing of external or internal stimuli. Clinically, symptoms include excessive arousal, mood instability, irritability, aggression, and anger outbursts. These reactions can be excessive compared to social norms and may be inappropriate or harmful to the individual's interests. ED reflects a problematic mechanism for understanding one's emotional state and additionally impairs the mechanisms needed to cope with one's emotional state. This presentation aims to provide a general overview of the clinical features of ED in children and adolescents with psychiatric disorders.

Keywords: Emotional Dysregulation, Child and Adolescent, Psychopathology,

References

1. Thompson RA. Emotion regulation: a theme in search of definition. Monogr Soc Res Child Dev. (1994) 59:25–52. doi: 10.1111/j.1540-5834.1994.tb01276.x
2. Bertocci MA, Bebko G, Olino T, Fournier J, Hinze AK. Behavioral and emotional dysregulation trajectories marked by prefrontal-amygdala function in symptomatic youth. Psychol Med. (2014) 44:2603–15. doi: 10.1017/S0033291714000087
3. Gross JJ. Emotion regulation: taking stock and moving forward. Emotion. (2013) 13:359–65. doi: 10.1037/a0032135

[Abstract:0547] [Psychopharmacology]
Mechanism of Action of Guanfacine in Psychiatric Disorders

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OBJECTIVE: Guanfacine, originally developed for hypertension treatment, is classified as an alpha-2 adrenergic receptor agonist. It has a 15 to 20 times higher affinity for alpha2A-adrenergic receptors than for the alpha2B or alpha2C subtypes. It has more affinity for the α 2A receptor than clonidine. The mechanism of action of guanfacine in psychiatric disorders involves its binding to alpha-2A adrenergic receptors in the brain, leading to the modulation of norepinephrine

release. Norepinephrine is a neurotransmitter that plays a role in regulating attention, arousal, and stress response. Guanfacine may improve symptoms associated with ADHD, Tourette syndrome, and post-traumatic stress disorder (PTSD) by reducing norepinephrine transmission and regulating prefrontal cortex activity. The prefrontal cortex (PFC) is responsible for high-level cognitive and executive functions such as working memory, abstract reasoning, insight, and judgment, as well as top-down attention, action, and emotion control. A variety of evidence shows that guanfacine acts within the PFC via postsynaptic α2A-AR on dendritic spines to inhibit cAMP-PKA-K+ channel signaling, thus strengthening network connectivity, enhancing PFC neuronal firing and improving PFC cognitive functions. Guanfacine may benefit stress-related disorders with α2-AR actions, such as weakening plasticity in the amygdala, reducing NE release, and antiinflammatory actions by deactivating microglia. Guanfacine may help reduce tics by strengthening the prefrontal cortex PFC inhibition of abnormal processes in deeper basal ganglia structures. Studies on the use of guanfacine in psychiatric disorders are limited. We aimed to review the mechanism of action of guanfacine in psychiatric disorders.
METHODS: We conducted a search of PubMed, ClinicalKey, and MEDLINE databases. Keywords used included, in varying combinations: guanfacine, mechanism of action, psychiatry, children and adolescent, attention deficit hyperactivity disorder, post-traumatic stress disorder, Tourette syndrome.
RESULTS: We show guanfacine's mechanism of action for treating psychiatric symptoms.
CONCLUSION: This research presents an overview of guanfacine's role in psychiatric disorders and its mode of action. It stimulates postsynaptic alfa-2A adrenergic receptors, so it inhibits the production of cAMP and closes HCN channels, enhancing the effectiveness of the signal of the pyramidal neurons of the prefrontal cortex. The FDA approved the use of guanfacine ER tablets as adjunctive therapy to stimulants for treating ADHD in children and adolescents aged 6–17 years. The usual starting dose for guanfacine is 0.5–1 mg/day, and the typical therapeutic dose is 1–4 mg daily. It is a non-stimulant ADHD medication used to treat attention deficit hyperactivity disorder. Although usually well-tolerated, Guanfacine can cause side effects like sleeplessness, decreased appetite, dry mouth, and dizziness. It may be efficacious in treating substance abuse disorders, schizophrenia, conduct disorders, autism spectrum disorders, anxiety disorders, and tic disorders. Guanfacine also may have therapeutic effects in treating PTSD symptoms, such as re-experiencing the trauma, avoidance of others, and hyperarousal. Clinicians can make better treatment decisions by understanding how guanfacine works.

Keywords: guanfacine, mechanism, psychiatry, norepinephrine, attention deficit hyperactivity disorder

References

Arnsten A. F. T. (2020). Guanfacine's mechanism of action in treating prefrontal cortical disorders: Successful translation across species. Neurobiology of learning and memory, 176, 107327.
Huss, M., Chen, W. & Ludolph, A.G. Guanfacine Extended Release: A New Pharmacological Treatment Option in Europe. Clin Drug Investig 36, 1–25 (2016).
Elbe, D., & Reddy, D. (2014). Focus on Guanfacine Extended-release: A Review of its Use in Child and Adolescent Psychiatry. Journal of the Canadian Academy of Child and Adolescent Psychiatry, 23(1), 48-60.

[Abstract:0548] [Psychopharmacology]
Non-Psychotherapeutic Approaches for the Treatment of Female Sexual Interest/Arousal Disorder

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Female Sexual Interest/Arousal Disorder (FSIAD) is characterized by significantly reduced or absent sexual interest and/or arousal. The complaint of lack of sexual interest or arousal usually comes from women who are in a steady relationship and is related to differences in sexual desire between her and her partner. Although the prevalence of decreased sexual desire in the general population of women varies in terms of diagnostic criteria and study methods, it was found to be about 20-30% in studies (1). There are many factors that play a role in sexual interest and arousal, so it is important to consider the sensitivity of brain and central nervous system pathways involved in sexual response as well as cognitive and relational factors in FSIAD (2). The cognitive behavioral therapy approach, which is evaluated in a relational context and focuses on increasing arousal and sexual satisfaction, has been shown to be effective in the treatment of FSIAD. Although desire and arousal problems appear to be more strongly related to psychological and relational factors, there are also studies focusing on pharmacological treatments aimed at reducing these problems. In studies; focused on flibanserin, testosterone combined with sildenafil or buspiron, bremelanotide, BP101 (a synthetic peptide molecule), and nasal testosterone (TBS-2). Another drug is the d-cycloserine, a memory-enhancing drug, which also has research on its effect on sexuality. Originally synthesized as an antidepressant drug, flibanserin was approved for the treatment of hypoactive sexual desire disorder in women in 2015 due to its sexual activity-enhancing effects. Bremelanotide increases the release of dopamine and oxytocin and acts on the nerves innervating the clitoris and vagina (3). Bremelanotide, an injectable α-MSH analogue is a newly approved pharmaceutical option for the treatment of

hypoactive sexual desire disorder (HSDD) in premenopausal women (4). In addition to FDA-approved treatments for HSDD (flibanserin, bremelanotide), off-label use of some medications (bupropion, buspirone, trazodon) may also help reduce these problems (5). Better results can be achieved by evaluating sexual interest and arousal problems in the context of the couple and incorporating psychopharmacological intervention into cognitive behavioral and sexual therapy interventions.

References

1- West SL, D'Aloisio AA, Agans RP, Kalsbeek WD, Borisov NN, Thorp JM: Prevalence of low sexual desire and hypoactive sexual desire disorder in a nationally representative sample of US women. Arch Intern Med 2008;168:1441–1449.
2-Bitzer J, Giraldi A, Pfaus J. Sexual desire and hypoactive sexual desire disorder in women. Introduction and overview. Standard operating procedure (SOP Part 1). J Sex Med. 2013;10(1):36–49.
3- Pfaus J, Giuliano F, Gelez H. Bremelanotide: an overview of preclinical CNS effects on female sexual function. J Sex Med. 2007;4:269-279. 5
4- Clayton AH, Althof SE, Kingsberg S, Derogatis LR, Kroll R, Goldstein I, et al. Bremelanotide for female sexual dysfunctions in premenopausal women: a randomized, placebo-controlled dose-finding trial. Womens Health (Lond). 2016;12(3):325–374.
5-Clayton AH, Goldstein I, Kim NN, et al. The international society for the study of women's sexual health process of care for management of hypoactive sexual desire disorder in women. Mayo Clin Proc. 2018;93(4):467-487.

Keywords: sexual dysfunction, flibanserin, pharmacotherapy

[Abstract:0549] [Others]
Socioemotional Deficit in Sluggish Cognitive Tempo

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Although it has not been included in the diagnostic classifications, Sluggish Cognitive Tempo (SCT) is a condition frequently comorbid with attention deficit hyperactivity disorder (ADHD) and characterized by symptoms such as daydreaming, mental confusion, sluggish–lethargic behavior, and hypoactivity (Barkley, 2012).
Impairment in social functioning has been known in children with SCT just as in those with ADHD. However, poor social skills have been found to be present still after controlling for ADHD symptom severity (Becker, 2018).
Although it is claimed that difficulties in social environments may be associated with the symptoms of depressive disorder or anxiety due to the high rates of comorbidity with SCT, there is evidence that poor emotional regulation and low self-esteem persist after controlling for ADHD, depression, and anxiety symptom levels (Becker, 2015).
It has been suggested that processing external sensory information, which is necessary to manage social interactions is a challenge for children and adolescents with SCT, and therefore they avoid social situations (Flannery, 2016).

Keywords: Sluggish Cognitive Tempo, Socioemotional Deficit, Cognitive Disengagement Syndrome

References

Barkley, R. A. (2012). Distinguishing sluggish cognitive tempo from attention-deficit/hyperactivity disorder in adults. Journal of abnormal psychology, 121(4), 978.
Becker, S. P., & Barkley, R. A. (2018). Sluggish cognitive tempo. Oxford textbook of attention deficit hyperactivity disorder, 147-153.
Becker, S. P., Luebbe, A. M., & Joyce, A. M. (2015). The Child Concentration Inventory (CCI): Initial validation of a child self-report measure of sluggish cognitive tempo. Psychological assessment, 27(3), 1037.
Flannery, A. J., Becker, S. P., & Luebbe, A. M. (2016). Does emotion dysregulation mediate the association between sluggish cognitive tempo and college students' social impairment? Journal of attention disorders, 20(9), 802-812.

[Abstract:0550] [Autism Spectrum Disorders]
Clinical assessment, genetics, and treatment approaches in autism

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Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that begins in early childhood; it is characterized by problems in social communication—interaction, repetitive and restricted behaviors, interests, or activities. The increasing prevalence rates of ASD in recent years have focused more attention on this area. The most recent report

from the Centers for Disease Control and Prevention stated that 1 in 36 children in the United States is diagnosed with ASD. Although there is no definitive data on the prevalence of ASD in Turkey, it is stated that the number of school-aged children diagnosed with ASD is 16,837 and 53.2% of special education and rehabilitation centers provide educational services for children with ASD.
Considering the complexity of ASD and the diversity of clinical manifestations, it has been suggested that the genetic factors in the etiology of autism are most likely polygenic and the genes presumed to cause autism are most likely interacting with each other in terms of function and structure (epistatic). As a result of increased degree of consanguinity, the strong genetic contribution to the development of ASD is also supported by the unequal distribution of genders, increased prevalence in siblings, higher concordance in monozygotic twins, and increased risk of ASD. The clinical heterogeneity of autism has a complex genetic architecture that includes various common and rare variants, ranging from point mutations to large copy number variants, inherited or de novo. As a result of candidate gene studies, more than 100 positional and/or functional candidate genes associated only with autism have been identified. These regions have been associated with genes with extremely rare mutations, and mutations often de novo and potentially damaging. Despite all the developments in the field of genetics, the underlying causes of autism spectrum disorder have still not been identified.
Behavioral and psychiatric comorbidities in individuals with ASD are prevalent, and their impact is significant. Among clinical populations, 70.0%–96.0% of individuals with ASD may have at least one comorbid psychiatric condition. The risk of co-occurrence of behavioral and psychiatric disorders is influenced by individual differences such as age, intellectual functioning, gender and genetic factors.
Behavioral interventions, drug therapies and pharmacogenetics are used to treat challenging behaviors or comorbidities commonly seen in ASD. Pharmacogenetic testing may use to help guide the selection of psychotropic medications in ASD.

Keywords: Autism, ASD, etiology, genetics, assessment, treatment

[Abstract:0553] [Attention deficit hyperactivity disorder (ADHD)]
Emotional Dysregulation and Attention Deficit Hyperactivity Disorder

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Attention Deficit Hyperactivity Disorder (ADHD) is a common neurodevelopmental disorder affecting 5-7% of adults and children. The core symptoms of ADHD are comprised of inattention, hyperactivity and impulsivity. These symptoms lead to clinically significant functional and psychosocial impairments. Additionally, irritability, low frustration tolerance and affective instability that have been related to chronic emotional regulation dysfunction are frequently observed in patients with ADHD. According to some authors, emotional dysregulation (ED) as an important ADHD feature. ED is an individual's inability to exercise any or all aspects of the modulatory processes involved in emotion regulation, to such a degree that the inability results in the individual functioning meaningfully below his or her baseline.
There are various steps involved in emotion processing such as emotion recognition and regulation. Emotion recognition is paying attention to and accurately identifying emotions in the self and others. Emotion recognition is a prerequisite for emotion regulation or a part of the regulation process. Some studies have showned that an association between deficit in emotion recognition and ADHD. Individuals with ADHD can experience difficulties in regulating negative and positive emotions. Neuropsychological tests of emotional control (impulsivity, self-regulation of positive and negative emotions, and executive function) indicate that the processing of emotional stimuli is impaired in ADHD. They also exhibit more parasympathetic dysregulation and less sympathetic reactivity, although Lopez-Martin et al. found no differences in autonomous activation during go/no-go task performance comparing children with and without ADHD. Children with ADHD need stronger activation of inhibition-related neural mechanisms in order to achieve a similar performance, especially in emotional contexts. Furthermore, evidence continues to emerge that deficits in more than one neurological pathway are responsible for emotional dysregulation in ADHD. Seymour et al. found an association between ED unique subregion expansion in the right globus pallidus, putamen and amygdala in boys with ADHD.

These emotional symptoms are more prevalent in the combined presentation of ADHD compared with other presentations and their severity increases with the severity of other ADHD symptoms. Emotional symptoms are also common among adults with ADHD.
Children with ADHD and ED present significant social, academic and family functioning impairments. Children with ADHD and emotional symptoms are more likely to have hyperactive/impulsive symptoms continuing into early adulthood. Among adults with ADHD, emotional symptoms associate with unemployment, poor work performance and peer relations, low educational level, marital problems and poor quality of life. These findings indicate that ED should be regularly monitored in children with ADHD and should be managed with targeted therapeutic interventions.

References:
1. Soler-Gutiérrez, A. M., Pérez-González, J. C., & Mayas, J. (2023). Evidence of emotion dysregulation as a core symptom of adult ADHD: A systematic review. Plos one, 18(1), e0280131.
2. Faraone, S. V., Rostain, A. L., Blader, J., Busch, B., Childress, A. C., Connor, D. F., & Newcorn, J. H. (2019). Practitioner Review: Emotional dysregulation in attention-deficit/hyperactivity disorder–implications for clinical recognition and intervention. Journal of Child Psychology and Psychiatry, 60(2), 133-150.
3. van Stralen, J. (2016). Emotional dysregulation in children with attention- deficit/hyperactivity disorder. ADHD Attention Deficit and Hyperactivity Disorders, 8(4), 175-187.

Keywords: adhd, emotional dysregulation, emotional self-regulation, irritability

[Abstract:0554] [Impulse control disorders]
Gaming Disorder and Emotional Dysregulation

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Gaming disorder, officially recognized as a mental health condition by the World Health Organization (WHO) and included in the International Classification of Diseases (ICD-11), has garnered increasing attention in recent years. This condition is characterized by an individual's excessive and compulsive engagement with video games, to the point where it significantly disrupts their daily life, responsibilities, and overall well-being.
Individuals grappling with gaming disorder often exhibit several common symptoms that serve as markers for this condition. One of these symptoms is the tendency to prioritize gaming over other vital activities, such as work, school, or social interactions. The allure of the virtual world can be so compelling that it leads to a loss of interest in once-enjoyed hobbies and a marked deterioration in physical health, primarily stemming from extended sedentary gaming sessions. This toll on one's sleep patterns, coupled with heightened irritability and a tendency to withdraw from friends and family, further defines this disorder.
A defining feature of gaming disorder is the individual's inability to exert control over their gaming behavior. People ensnared by this condition often find themselves ensnared in gaming sessions that extend far beyond their original intentions. This lack of restraint often spawns cravings akin to addiction, coupled with a fleeting sense of relief while immersed in gameplay, only to be replaced by profound guilt and remorse afterward. This distressing cycle, marked by intense gaming, insatiable cravings, and a wave of negative emotions, can become all-consuming, causing a significant deterioration in mental and emotional well-being.
It is essential to underscore that not everyone who enjoys playing video games is afflicted by gaming disorder. Gaming, in moderation, can serve as a perfectly healthy and enjoyable pastime. However, for those who grapple with an inability to control their gaming habits, coupled with the onset of adverse consequences in various facets of life, seeking professional help becomes a crucial step towards recovery.
In an age where technology continues to advance, rendering video games more immersive and accessible than ever before, the growing prevalence of gaming disorder is a concern that society must address. It necessitates raising awareness about responsible gaming habits and offering support to those in need. By doing so, we can mitigate the detrimental impacts of gaming disorder and ensure that gaming remains a source of entertainment and enjoyment rather than a detriment to mental health.

Emotional dysregulation represents a prominent facet of gaming disorder, significantly contributing to its onset and perpetuation. Treatment for gaming disorder often includes addressing emotional dysregulation as a central component. Therapists work closely with individuals to help them recognize and regulate their emotions in healthier ways. This may involve teaching emotional awareness, coping skills, and strategies to manage stress and negative emotions without resorting to excessive gaming. Furthermore, therapy can help individuals identify and confront underlying emotional issues that may have contributed to the development of gaming disorder in the first place.

Keywords: gaming disorder, emotional dysregulation, emotion

[Abstract:0555] [Autism Spectrum Disorders]
Case examples with genetic etiology in autism

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The etiology of the Autism Spectrum Disorder (ASD) is characterized by the interaction between environment and genetics. The contribution of the genetic effects to the etiology of ASD is higher than most of the other childhood psychiatric disorders. ASD has been associated with many syndromic disorders (e.g., Tuberosclerosis, neurofibromatosis, Rett S., Fragile X, Angelman S.). Also, studies pointed out that non-syndromic/isolated ASD is characterized by complex genetic contribution including multiple genes and loci.

Genetic tests are rapidly taking their place in clinical use in our country as well as all over the world. The number of genetic tests is increasing using new technologies. They provide important novel information about the diagnosis, treatment, and prevention of diseases. In this presentation, we discuss the potential value of genetic testing in child psychiatry clinics, especially in ASD. Next, we will discuss the applications of genetic testing used in child psychiatry and the barriers to access genetic testing and suggested ways to overcome them. We attach importance to child psychiatry specialists and all researchers in the field to reliably refer cases with genetic findings to genetic tests with up-to-date algorithms. Therefore, it becomes more important that basic and current knowledge about the genetics of psychiatry becomes an integral part of the education of researchers in the field of child psychiatry. Studies on the genetics of psychiatry are still up-to-date, and this field has a wide area of research open to exploration. Increasing knowledge on this subject, especially improving the diagnostic classification system, will enable the discovery of new therapeutic targets and biomarkers. Moreover, it will make personalized psychiatry more effective.

Keywords: ASD, Autism, Genetic, Child psychiatry, Neurodevelopmental Disorders

[Abstract:0556] [Autism Spectrum Disorders]
The importance of chromosomal analysis and chromosomal microarray in the etiology of autism

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Copy number variants (CNVs) describe submicroscopic deletions or duplications in the chromosome structure, which can involve several genes. CNVs can occur as heritable or de novo. Individual gene mutations or polymorphisms were frequently investigated in psychiatric disorders. However, these studies remained insignificant to associate with clinical phenotype and biological basis. Clinical heterogeneity and polygenic basis of the psychiatric disorders cause difficulties in the direct correlation between individual pathogenic gene mutations and clinical phenotype. CNVs involve altered gene dosages and provide an important opportunity to improve our understanding of the association between genotype and phenotype. CNVs have shown a strong relationship with Neurodevelopmental disorders. For example, 22q11.2 Deletion Syndrome affects about 60 genes and causes psychiatric disorders; intellectual disability (60%), attention-deficit/hyperactivity disorder (41%), autism spectrum disorder (26%), schizophrenia (25%).

Until now, pathogenic CNVs have been associated with Intellectual Disability, Autism Spectrum Disorder, Schizophrenia, and Bipolar Disorder. Over the past 10 years, advances in microarray-based techniques have provided to detect submicroscopic chromosomal abnormalities, CNVs, across the entire genome. Also, a type microarray-based technique, array-comparative genomic hybridization (aCGH), provides an opportunity for the analysis of both single-nucleotide polymorphism (SNP) and CNVs. Microarray-based techniques are more advantageous than classic cytogenetic analysis and FISH analysis. Because the resolution of detection of chromosomal variants is around 5 Mb and copy number changes below 5 Mb may not be shown on routine cytogenetic analysis, unlike microarray-based techniques. On the other hand, FISH is a technique that provides to detect numeric and structural abnormalities, including submicroscopic copy number changes using tagged probes that bind to the only specific chromosome of interest, not to entire genome.

Advances in genomic tools such as microarray analysis to detect submicroscopic chromosomal abnormalities have increased the number of genetic tests that were applied to cases with psychiatric diseases. The genes included in the CNVs are beginning to offer important biological insights and give information to us about brain development and function related to intellectual disability and autism spectrum disorder. Also, understanding pathophysiological mechanisms underlying neurodevelopmental disorders will offer a link between genomic variants and new treatment options. Especially, microarray-based techniques are implied as a first step genetic test for the cases diagnosed with Intellectual disability or Autism Spectrum Disorder. In the near future, microarray analysis will be used as a routine in the clinical practice for most children who are under the care of the child and adolescent psychiatrists.

Keywords: ASD, Autism, Genetic, Copy Number Variations, Chromosomal Microarray

[Abstract:0557] [Autism Spectrum Disorders]
Autism Spectrum Disorder and Emotional Dysregulation

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Autism Spectrum Disorder (ASD), a neurodevelopmental condition characterized by social and communication challenges, repetitive behaviors, and restricted interests, affects approximately one in 36 children worldwide. Children with ASD also face an increased risk of intellectual disability and language disorders. These difficulties, in conjunction with ASD, heighten the likelihood of developing comorbid mental health conditions, with about 70 percent of ASD children experiencing at least one, and up to 57 percent facing multiple coexisting mental health disorders. Furthermore, the development of these co-morbid conditions not only negatively impacts a child's functioning but also amplifies the social, emotional, and economic burdens already borne by families with children on the autism spectrum. Emotion Regulation (ER) is the ability to monitor, assess, and adjust one's emotional state to achieve a goal, involving both intrinsic and extrinsic processes. Intrinsic ER pertains to an individual's self-regulation of emotions, while extrinsic ER involves external regulation, such as a caregiver soothing an infant through physical contact. The development of ER begins in the first months of life when infants learn to achieve physiological balance. While infants have reflexes to alleviate discomfort, they depend on caregiver support to regulate their arousal and emotions. Caregivers interpret and respond to their infant's emotional cues, influencing brain development and forming the foundation for caregiver-child attachment. Children with consistently available, sensitive, and responsive caregivers are more likely to develop secure attachments. Various methods, such as self-report, informant report, observational, and physiological measures, have been developed to assess emotion regulation (ER) abilities. Observational measures, often used with children, involve exposing them to emotionally challenging situations, but they can be time-consuming and may not reflect natural behaviors. Informant and self-report measures are quicker but susceptible to reporting biases. Physiological methods, like heart rate monitoring, assess only one aspect of ER. To comprehensively assess ER, it's recommended to combine multiple measurement approaches. Research results suggest that young children with ASD exhibit weaker ER abilities compared to typically developing (TD) children. They tend to employ simpler and less effective ER strategies during distress and rely more on others for emotional regulation, indicating a potential delay in transitioning from external to internal ER strategies. Research on children with ASD suggests that greater ASD symptom severity and lower executive functioning skills are linked to less effective ER. While there's some evidence of a connection between lower intellectual quotient / developmental quotient (IQ/DQ) and avoidance strategies in ER tasks, most studies find no relationship between IQ and ER in children with ASD. Receptive language, but not expressive language, appears to influence ER, with better receptive language skills correlating with stronger ER abilities. Surprisingly, no differences in physiological arousal have been found between children with and without ASD, suggesting that ER disparities may not be due to differences in arousal levels. However, research on the association between ER and externalizing/internalizing behavior problems in children with ASD is limited. While research on ER interventions in ASD is relatively new, initial findings from pilot studies are promising. These studies indicates that interventions like cognitive behavior therapy and mindfulness can effectively improve emotional regulation, impulse control, and reduce symptoms in children and young adults with ASD.

Keywords: Emotion Regulation, Autism Spectrum Disorder, Child and Adolescent

[Abstract:0558] [Autism Spectrum Disorders]
The Role of Whole Exome Sequencing in Diagnosis of Autism and Developments in Genetic Therapy

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Autism spectrum disorder (ASD) is a group of disorders characterized by persistent impairment in social communication and interaction, restricted and repetitive behavior, interests or activities. Although the exact etiology of ASD, a neurodevelopmental disorder, is unknown in most cases, new technologies and new population-based studies have shown that both genetic and environmental factors play a role in the etiology of ASD. Although it has been stated that many genetic and environmental factors such as oxidative stress, mitochondrial dysfunction, and immune abnormalities play an important role in the etiopathogenesis of ASD, the cause of autism and the underlying pathological mechanisms are still unclear.
It is estimated that hundreds of genes show high locus heterogeneity in ASD as well as environmental factors, common variants seen more than 5% in the population underlie the inheritance, and rare variants also play a minor role. Although they are not the sole cause, the relevant variants are considered to be low-medium risk factors for ASD, and the combined role of many variants is thought to form the basis of the genetic infrastructure. Although rare variants occur in less than 1% of the population, they carry a higher risk of ASD than common variants. Today, the genetic cause can be determined for only 20-25% of children with autism, and the cause is not yet known for the remaining 75-80%. Identification of candidate genes and further analysis of these genes may contribute to elucidating the etiology.

Whole exome sequencing (WES) is used with increasing frequency to identify the underlying genetic cause of diseases. Although it is generally applied when single gene tests and gene panels are inconclusive, there are publications recommending its use as a first-line test in certain indications. Comprehensive analyzes enable accurate diagnosis and appropriate clinical management of complex conditions such as the phenotype in the presented case. WES analysis is a very important and preferred test to increase the success of diagnosis of rare diseases that are difficult to diagnose due to genetic heterogeneity. Although future development of targeted therapies is likely to be influenced by the underlying heterogeneity in etiology, associated genetic mechanisms affecting ASD are likely to be the first targets of treatments or even gene therapy for ASD in the future.

Keywords: Autism spectrum disorder, genetic, WES, gene therapy

[Abstract:0560] [Trauma, stress and related disorders]
An evidence-based approach to psychopharmacology for posttraumatic stress disorder - 2023 update

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BACKGROUND: Algorithms for posttraumatic stress disorder were published by this team in 1999 and 2011. Developments since then warranted revision.
METHODS: New studies and review articles from January 2011 to March 2023 were identified via PubMed and analyzed for evidence supporting changes in the algorithm.
RESULTS: Following consideration of the impact of various comorbid conditions, prioritization of treatment of sleep impairments was continued as the first recommended step. Nightmares and disturbed awakenings (without recalling a nightmare) are best addressed with the anti-adrenergic agent prazosin, with clonidine as an alternative. First choices for difficulty initiating sleep include hydroxyzine and trazodone. If significant non-sleep "core" PTSD symptoms remain, an SSRI is next. Paroxetine and sertraline are FDA approved for PTSD, though evidence for all SSRIs is weak. The evidence for sertraline is particularly weak in veterans, and this SSRI is not approved for men in England or Australia. In the guidelines of the National Institute for Clinical Excellence (NICE), the low effect sizes of SSRIs are emphasized. However, there are a few new studies of sertraline published since these guidelines and our previous algorithm, and these added modest support for PTSD in civilian populations. If there is no response to the selected SSRI and the patient is experiencing PTSD-related psychosis, consider augmenting with an antipsychotic. Risperidone has the best evidence in that it has the only placebo-controlled randomized trial of this usage. Quetiapine monotherapy was also found to be effective, especially the reexperiencing and hyperarousal clusters, in a small study. Some of the patients in this study had psychotic symptoms so we consider quetiapine an option for PTSD with psychosis. If side effects from risperidone or quetiapine would be unacceptable, consider aripiprazole which has some open-label reports. If the patient does not have psychosis and does not respond to the first SSRI trial, consider a second SSRI or the SNRIs venlafaxine or duloxetine. Evidence suggests no reason to prefer them to an SSRI for first-line treatment, and hyperarousal symptoms are not improved by SNRIs. Mirtazapine may be considered as an augmentation of the first trial, especially with sertraline and paroxetine, but mirtazapine monotherapy did not show efficacy for PTSD in a randomized trial. For a third medication trial for core symptoms, consider another SSRI, SNRI, or daytime prazosin or clonidine. In treatment resistant cases, one may consider some other options; evidence support ranges from unconvincing to sometimes fairly robust. The following will be briefly discussed: transcranial magnetic stimulation, cannabidiol, ketamine/esketamine, stellate ganglion block, and some psychedelic drugs, but none has sufficient evidence to have an earlier spot in the algorithm. Valproate and bupropion are ineffective. Cannabis has some evidence of causing increased difficulties with irritability and anger management and is best avoided, but it is often difficult to persuade enthusiastic users to discontinue it.
CONCLUSIONS: This heuristic offers an evidence-derived, systematic approach to selecting medications for PTSD. Improvements are inevitable, as more is learned from research.

Keywords: Posttraumatic Stress Disorder, prazosin, nightmares, veterans, SSRIs, trazodone

References:
1.Bajor LA, Balsara C, Osser DN. An evidence-based approach to psychopharmacology for PTSD – 2022 update. Psychiatry Res 2022; 317:114840
2.Skeie-Larsen M, Stave R, Gronli J, et al. The effects of pharmacological treatment of nightmares: a systematic literature review and meta-analysis of placebo-controlled, randomized clinical trials. Int J Environ Res Public Health 2023: 20:777
3.Friedman MJ, Marmar CR, Baker DG, et al. Randomized, double-blind comparison of sertraline and placebo for PTSD in a Department of Veterans Affairs setting. J Clin Psychiatry 2007: 68(5):711-720

[Abstract:0561] [Psychopharmacology]

The Psychopharmacology Algorithm Project at the Harvard South Shore Program: An update on management of behavioral and psychological symptoms in dementia

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BACKGROUND:
The Psychopharmacology Algorithm Project at the Harvard South Shore Psychiatry Residency Training Program (www.psychopharm.mobi) aims to capture the essence of the available evidence on pharmacotherapy treatment of various psychiatric disorders. This presentation focuses on our recently published Behavioral and Psychological Symptoms of Dementia (BPSD) algorithm. Major factors considered in the review included efficacy, side effects, and amount of evidence supporting the medication proposed. The speaker will explain how this algorithm should be interpreted and utilized. The basic approach to an older adult patient presenting with BPSD, the treatments of BPSD, and how risk and benefits of medications should be considered will be discussed.
METHODS:
New studies and review articles from January 1st 2018 to September 2023 were identified via PubMed and analyzed for evidence supporting changes in the algorithm.
RESULTS:
Older adults with dementia, regardless of etiology, frequently present to psychiatrists and geriatricians with agitation, aggression, psychosis, and other psychological symptoms. We present an update of our previously published algorithm for the use of psychopharmacology in these patients. We propose three algorithms: one for BPSD in an emergent setting, one for an urgent setting, and another for non-emergent settings. In the emergent setting, the clinician, patient, or others are in imminent danger due to behaviors related to BPSD and rapid response is required. In the urgent BPSD setting, the patient is symptomatic, but there is the potential to wait for a few days to weeks for improvement. In the non-emergent setting, the patient does not appear to be at imminent risk of putting him/herself or others at harm but has a history of such behaviors which interfere with care or quality of life.
Emergency management often requires intramuscular medication (IM) administration. Our first-line recommendation is olanzapine (IM aripiprazole, favored in our previous version, is no longer available). Haloperidol IM is the second choice, followed by consideration of IM benzodiazepine. In the urgent algorithm, when oral treatments are possible, first line recommendations are the second-generation antipsychotics (SGAs) aripiprazole and risperidone. We review the evidence for also considering prazosin and electroconvulsive therapy as alternatives. There are hazards associated with all of these agents, including increased risk of mortality, which are discussed. Dosing strategies, discontinuation considerations, and side effects will also be discussed. In the non-emergent setting, we recommend first decreasing anti-cholinergic load, optimizing pain management, and improving sleep. Medication options are proposed for use in the following order: trazodone, donepezil and memantine, the selective serotonin reuptake inhibitors escitalopram and sertraline, SGAs (aripiprazole and risperidone), prazosin, and carbamazepine. New FDA approved medications including brexpiprazole for Alzheimer's Dementia and Pimavanserin for Parkinson's Dementia are discussed. Finally, other emerging options with insufficient evidence to include in the algorithms but with potential future promise are also discussed.
CONCLUSION:
This presentation offers an evidence-based approach to diagnose and treat BPSD, which is a complex and common problem in older adults with dementia.

Keywords: Geriatric Psychiatry, Psychopharmacology, Dementia

References

1. Reus, V.I., Fochtmann, L.J., Eyler, A.E., Hilty, D.M., Horvitz-Lennon, M., Jibson, M.D., Lopez, O.L., Mahoney, J., Pasic, J., Tan, Z.S., Wills, C.D., Rhoads, R., Yager, J., 2016. The American Psychiatric Association Practice Guideline on the Use of Antipsychotics to Treat Agitation or Psychosis in Patients With Dementia. Am J Psychiatry 173 (5), 543–546.
2. Kales, H.C., Gitlin, L.N., Lyketsos, C.G., 2015. Assessment and management of behavioral and psychological symptoms of dementia. Bmj 350, h369.
3. McDermott, C.L., Gruenewald, D.A., 2019. Pharmacologic Management of Agitation in Patients with Dementia. Curr Geriatr Rep 8 (1), 1–11.
4. Chen A, Copeli F, Metzger E, Cloutier A, Osser DN. The Psychopharmacology Algorithm Project at the Harvard South Shore Program: An update on management of behavioral and psychological symptoms in dementia. Psychiatry Res. 2021 Jan;295:113641. doi: 10.1016/j.psychres.2020.113641. Epub 2020 Dec 13. PMID: 33340800.

[Abstract:0562] [Attention deficit hyperactivity disorder (ADHD)]

Treatment of Attention Deficit Hyperactivity Disorder with Emotional Dysregulation

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Attention deficit hyperactivity disorder (ADHD) is a neurobehavioral disorder, affecting 5% to 7% of children. In half of the children with ADHD, there is significant emotional dysregulation (ED) like persistent irritability, explosive verbal outbursts, or physical aggression. Children with ADHD and ED show impairing functioning at home, school, and in other social settings. So ED should be regularly monitored in children with ADHD and should be managed with targeted therapeutic interventions. There is emerging evidence that pharmacologic treatments for ADHD reduce ED symptoms. Central nervous system (CNS) stimulants are safe and well-tolerated treatment of children with ADHD and ED manifesting as irritability or aggression. Optimization of CNS stimulants dose in combination with parent-focused behavioral interventions leads to significant improvement in ED among youths with ADHD. The rate of adverse emotional responses to CNS stimulants remains unclear. When aggression persists, low doses of risperidone are the most well-supported medication option. Other options with some evidence of effect include divalproex, molindone, and selective serotonin reuptake inhibitors. More studies are needed on the capacity of nonstimulant ADHD medications to improve ED. When considering adjunctive medication treatments for ED and aggression, tolerability is an important concern and the risk/benefit ratio of treatment should be periodically reassessed as treatment continues. Few studies have evaluated the efficacy of psychosocial interventions to manage ED in children with ADHD. These studies suggested that psychosocial interventions can improve severe irritability and aggressive behavior in children with ADHD and ED. However, the short trial duration, the lack of follow-up and of control group in several studies, and the heterogeneity of the outcome measures affected the result interpretation. Future studies should focus on identifying the mechanisms by which existing pharmacologic treatments improve ED, markers of treatment response and the benefits of integrating pharmacotherapy with psychosocial treatments designed to improve ED.

Keywords: ADHD, emotion dysregulation, treatment

[Abstract:0563] [Psychopharmacology]
Use of Guanfacine for the Treatment of Other Psychiatric Disorders

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Guanfacine is easily absorbed in children and adolescents and approximately 70 binds to plasma proteins. Guanfacine α2A receptor subunit type, 15-20 times more than other α2B or α2C subtypes has a high affinity. Hepatic metabolism of guanfacine occurs primarily via CYP3A4. It is a substrate of CYP3A4 and CYP3A5. Blood levels are therefore influenced by strong inducers and inhibitors.Guanfacine is a molecule that functions as an agonist for alpha 2a receptors, predominantly in the prefrontal cortex of the brain. Compared to non-selective alpha 2 agonists like clonidine, Guanfacine targets prefrontal cortex receptors with fewer adverse effects. Guanfacine is primarily administered for ADHD treatment following stimulants and atomoxetine. As guanfacine has proven effective for treating basic symptoms of ADHD, it has also been utilised in the treatment of various comorbid conditions and psychopathologies with demonstrated effectiveness. In particular, guanfacine has been used to treat tic disorders, such as Tourette's Syndrome. When treating tics, alpha agonists demonstrate moderate efficacy. Especially in the comorbidity of ADHD and tic disorder, guanfacine can be used alone or added to methylphenidate. A clear advantage of guanfacine is that it causes less sedation compared to clonidine, and the long-acting form allows for a single dose administration. The most common side effects of guanfacine are sedation, headache, dizziness, irritability and dry mouth. Syncope has been observed in some children treated with guanfacine. In a placebo-controlled study investigating the efficacy of guanfacine in children with tics and ADHD, teacher rating scale scores decreased by 37% in the guanfacine group, while this rate was 8% in the placebo group. In addition, a 31% decrease in tic intensity was observed in the guanfacine group, while no change was found in the placebo group. Additionally, studies have demonstrated the efficacy of guanfacine treatment for comorbidities, including oppositional defiant disorder and conduct disorder in individuals with ADHD. It has also exhibited a positive impact on the treatment of irritability and repetitive movements in those with autism spectrum disorder. An 8-wk multisite study of extended-release guanfacine in 62 children with ASD and ADHD, mean age 8.5 years, found a significant improvement in comparison with placebo. One study evaluated 83 children aged 6-17 years with generalised anxiety disorder, separation anxiety disorder or social phobia/social anxiety disorder who were flexibly dosed with guanfacine 1 to 6 mg/day or placebo for 12 weeks. There were no significant differences between treatment groups; however, 54.2% of participants receiving guanfacine were rated as "much" or "very much improved" compared to 31.6% of participants receiving placebo. Side effects were consistent with known side effects of guanfacine. In addition, some animal data suggest that guanfacine has an antidepressant-like effect and data in humans would be useful.Furthermore, the adult study shows that guanfacine, a noradrenergic α2a agonist, reduces smoking and cravings by targeting stress-

induced use through the noradrenergic system. Evidence suggests that guanfacine improves cognitive performance, particularly in working memory, in diagnoses such as Schizotypal Personality Disorder. The impact of guanfacine on fundamental and supplementary symptoms has been demonstrated in varying patient cohorts.

Keywords: autism, guanfacine, tic disorders, treatment

References

1)Işık, Ü., Öğütlü, H., Kutuk, M. Ö., & Ercan, E. S. (2023). Dikkat Eksikliği Hiperaktivite Bozukluğu Tedavisinde Uzun Etkili Guanfasinin Yeri. Turkish Journal of Child & Adolescent Mental Health, 30(1).
2)Taner, H. A., Güney, E., & Taner, Y. (2013). Tourette Bozukluğunda İlaç Tedavisi. Psikiyatride Güncel Yaklaşımlar, 5(2), 246-259.
3)Hellings, J. (2023). Pharmacotherapy in autism spectrum disorders, including promising older drugs warranting trials. World Journal of Psychiatry, 13(6), 262.
4)Peltier, M. R., & McKee, S. A. (2023). The role of sex hormones in targeting stress-induced tobacco craving, stress-reactivity, and smoking with guanfacine among women who smoke. Addiction Neuroscience, 7, 100084.

[Abstract:0566] [Psychopharmacology]
Pharmacological Management of Acute Agitation in Psychosis and Mania

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BACKGROUND: To provide updated guidance for the medication treatment of acute agitation in the setting of psychosis or mania on inpatient psychiatric units and emergency departments. This topic presents challenges. Studies are relatively sparse, tend to be under-powered, and are difficult to compare. Thus, evidence for efficacy and safety is often uncertain. Although there have been few recent large well-controlled studies, there have been several recent meta-analyses, Cochrane Reviews, and published guidelines that sift through the primarily older evidence as well as more recent trials. The reviewers often do not agree on what seems to have the best evidence for efficacy and safety.
METHODS: The approach used for this presentation is: 1) To provide a summary in some detail of the evidence for each possible treatment and the interpretations published recently on each of those treatments. 2) To present recommendations for medication management in tiered rankings, based on a qualitative review of the data and opinions. When choosing amongst the medications, clinicians are reminded to consider past response, if known; allergies or severe adverse effects, if known; the medication regimen already in use; medical co-morbidities; patient preference, if knowable; and the advantage of interchangeable delivery (oral and IM) for some medications.
This ranking is informed by the available evidence, but due to the challenges mentioned in the Background (above) the ranking is somewhat subjective.
RESULTS: For oral treatment, the Tier One options are—listed alphabetically-- haloperidol with lorazepam, lorazepam alone, and olanzapine. The Tier Two options are asenapine, haloperidol with promethazine, loxapine inhaler, risperidone alone, and risperidone with lorazepam. The Tier Three options are promethazine and quetiapine. The Tier 4 option is haloperidol. For intramuscular treatment, Tier One includes droperidol, haloperidol plus promethazine, and olanzapine. Tier Two includes haloperidol with lorazepam, lorazepam alone, and midazolam alone. Tier Three includes droperidol plus midazolam, haloperidol alone, promethazine alone, and ziprasidone.
CONCLUSIONS:
The available evidence is difficult to synthesize with respect to creating a clear ranking – most to least optimal – based on efficacy within 2 hours and speed of onset, balanced by adverse effects including EPS and risk for potentially severe cardiopulmonary effects. Instead--after listing the options and describing the available evidence--the medication choices are grouped into tiers. The final medication choice is based on clinicians' judgment for each patient, considering efficacy, safety, and past experiences.

Keywords: Agitation, Management, Pharmacological, Psychosis, Mania

References

--Bak M, Weltens I, Bervoets C, et al. The pharmacological management of agitated and aggressive behaviour: a systematic review and meta-analysis. Eur Psychiatry 2019; 57:78–100.
-- Stetson, SR and Osser, DN. Psychopharmacology of agitation in acute psychotic and manic episodes. Current Opinion in Psychiatry, Volume 35, Number 3, 1 May 2022, pp. 171-176(6)
--Zun LS. Evidence-based review of pharmacotherapy for acute agitation. Part 2. Safety. J Emerg Med 2018; 54:522–532.

[Abstract:0567] [Psychopharmacology]

Abnormal brain spontaneous activity in major depressive disorder adolescents with non-suicidal self injury and its changes after sertraline therapy

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BACKGROUND: Non-suicidal self-injury (NSSI) commonly occurs among adolescents with major depressive disorder (MDD), causing adverse effects on the physical and mental health of the patients. However, the underlying neurobiological mechanism of NSSI in adolescents with MDD (nsMDDs) remains unclear, and there are still challenges in the treatment. Studies have suggested that sertraline administration could be an effective way for treatment.
METHODS: To verify the effectiveness and to explore the neurobiological processes, we treated a group of adolescents with nsMDDs with sertraline in this study. The brain spontaneous activity alteration was then investigated in fifteen unmedicated first-episode adolescent nsMDDs versus twenty-two healthy controls through the resting-state functional magnetic resonance imaging. Besides the baseline scanning for all participants, the nsMDDs group was scanned again after eight weeks of sertraline therapy to examine the changes after treatment.
RESULTS: At pre-treatment, whole brain analysis of mean amplitude of low-frequency fluctuation (mALFF) was performed to examine the neuronal spontaneous activity alteration, and increased mALFF was found in the superior occipital extending to lingual gyrus in adolescent nsMDDs compared with controls. Meanwhile, decreased mALFF was found in the medial superior frontal in adolescent nsMDDs compared with controls. Compared with the pre-treatment, the nsMDDs group was found to have a trend of, respectively, decreased and increased functional neuronal activity at the two brain areas after treatment through the region of interest analysis. Further, whole brain comparison of mALFF at pre-treatment and post-treatment showed significantly decreased spontaneous activity in the orbital middle frontal and lingual gyrus in adolescent nsMDDs after treatment. Also, depression severity was significantly decreased after treatment.
CONCLUSION: The abnormal functional neuronal activity found at frontal and occipital cortex implied cognitive and affective disturbances in adolescent nsMDDs. The trend of upregulation of frontal neuronal activity and downregulation of occipital neuronal activity after sertraline treatment indicated that the therapy could be effective in regulating the abnormality. Notably, the significantly decreased neuronal activity in the decision related orbital middle frontal and anxiety-depression related lingual gyrus could be suggestive of reduced NSSI in adolescent MDD after therapy.

Keywords: mALFF, sertraline therapy, non-suicidal self-injury, adolescent depression

References

1.Huang Q, Xiao M, Ai M, Chen J, Wang W, Hu L, et al. Disruption of neural activity and functional connectivity in adolescents with major depressive disorder who engage in non-suicidal self-injury: a resting-state fMRI study. Front Psych. (2021) 12:571532. doi: 10.3389/fpsyt.2021.571532
2.Zhang S, Chen J, Kuang L, Cao J, Zhang H, Ai M, et al. Association between abnormal default mode network activity and suicidality in depressed adolescents. BMC Psychiatry. (2016) 16:337. doi: 10.1186/s12888-016-1047-7
3.Zhou Y, Yu R, Ai M, Cao J, Li X, Hong S, et al. A resting state functional magnetic resonance imaging study of unmedicated adolescents with non-suicidal self-injury behaviors: evidence from the amplitude of low-frequency fluctuation and regional homogeneity indicator. Front Psych. (2022) 13:925672. doi: 10.3389/fpsyt.2022.925672

[Abstract:0568] [Attention deficit hyperactivity disorder (ADHD)]

Etiology, Symptom Severity and Treatment Of Attention Deficit/Hyperactivity Disorder From A Chronotype Perspective

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Many organisms, from single-celled organisms to plants, birds, and humans, have developed an endogenous timing system that synchronizes their physiology and behavior with day and night cycles. This system is known as the circadian clock. In Latin, "circa" means about, and "diem" means one day. The circadian clock controls many physiological events,

from gene expression to complex behaviors (sleep and performance). Chronotype refers to the period of the day when a person is physically and cognitively active. It is simply a person's circadian preference. It has been known for a long time that individuals' biological rhythms and circadian preferences differ from each other. There are three types of chronotypes as morningness chronotype, intermediate chronotype, and eveningness chronotype. Individuals with the morningness chronotype prefer morning hours to do their intellectual and physical activities, go to bed early, and get up early. Individuals with the eveningness chronotype prefer afternoon or evening hours to perform their mental and physical activities, go to bed late, and get up late. Individuals with the intermediate chronotype have the characteristics of individuals with the morningness and eveningness chronotypes. Chronotype is linked to well-being. Physical and mental health, self-esteem, family relations, and school functionality were found to be better in individuals with morningness chronotypes compared to eveningness chronotypes. Having the eveningness chronotype has been shown to be more risky for physical and mental health. Studies have shown that there is a positive relationship between major depressive disorder, anxiety disorder, internet addiction, mood disorders, substance abuse, sleep disorders, post-traumatic stress disorder, eating disorders, somatic symptoms, and eveningness chronotype. Another psychiatric disorder that has been shown to be related to the eveningness chronotype is attention deficit/hyperactivity disorder, one of the most common neurodevelopmental disorders. Repeated studies conducted in children, adolescents, and adults show that there is increased eveningness in individuals with ADHD compared to controls. The biological clock that provides the sleep-wake cycle may be set up later in individuals with attention deficit/hyperactivity disorder (ADHD), and melatonin may be secreted later. A growing number of studies draw attention to the fact that that there is a positive relationship between increased eveningness chronotype and ADHD symptom severity. Chronotypic interventions such as melatonin and light therapy aimed at regulating the eveningness chronotype may improve ADHD symptoms. In addition, there is increasing data that chronotherapies increase the effectiveness of medications used for ADHD. Organizing the daily plans of individuals with ADHD according to their chronotypic characteristics seems to be an important issue in increasing the functionality of these individuals. In this presentation, the circadian preference of individuals with ADHD, the possible relationship between the eveningness chronotype and ADHD etiology, chronotherapeutic interventions, and the effects of chronotherapy on ADHD symptom severity will be discussed in light of the literature.

Keywords: Attention deficit/hyperactivity disorder, circadian clock, eveningness chronotype, ADHD symptom severity, chronotherapeutic interventions

References

1-Adan A, Archer SN, Hidalgo MP, Di Milia L, Natale V, Randler C. 2012. Circadian typology: a comprehensive review. Chronobiol Int. 29(9): 1153-1175
2-Kivelä L, Papadopoulos MR, Antypa N. 2018. Chronotype and psychiatric disorders. Curr Sleep Med Rep. 4(2): 94-103.
3-Rybak, YE, McNeely HE, Mackenzie BE, Jain UR, Levitan RD. 2007. Seasonality and circadian preference in adult attention-deficit/hyperactivity disorder: clinical and neuropsychological correlates. Compr Psychiatry. 48(6): 562-571
4-Martinez-Cayuelas E, Moreno-Vinues B, Losada-Del Pozo R, Rodrigo-Moreno M, Soto-Insuga V, Pérez-Villena A. 2022. Sleep, chronotype, and behavior in adolescents with attention-deficit/hyperactivity disorder. Arch Pediatr. 29(4): 277-280
5-Bumb JM, Mier D, Noelte I, Schredl M, Kirsch P, Hennig O, Liebrich L, Fenske S, Alm B, Sauer C, Leweke FM, Sobanski E. 2016. Associations of pineal volume, chronotype and symptom severity in adults with attention deficit hyperactivity disorder and healthy controls. Eur Neuropsycholpharmacol. 26(7): 1119-1126

[Abstract:0569] [Attention deficit hyperactivity disorder (ADHD)]
What is Emotional Dysregulation?

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Emotion regulation (ER) is the ability to realise, assess, modify, and manage emotions in a personal and socially acceptable way, to maintain mental control over strong feelings, and arrive at adaptive functioning. This is accomplished by applying a variety of targeted, adaptive strategies such as acceptance, problem solving, and reappraisal (1). Gratz and Roemer (2004) defined emotion regulation as correctly understanding and being aware of emotions, tailoring emotional arousal, and achieving goal-directed behaviors regardless of the emotional state (2). Gross (2001) suggested that ER refers to internal (e.g., attention/cognitive) or external (e.g., behavioral) responses used to change or maintain the subjective, behavioral and/or physiological components of an emotional response (3).

Emotion dysregulation (ED) is defined as difficulties in recognizing, monitoring, appraising or adjusting emotional reactions (2). ED indicates a rigid and maladaptive use of emotion regulation strategies or inability to choose the most

appropriate strategy for accomplishing goals. Avoidance, rumination, denial, emotion suppression, aggression are examples of these maladaptive emotion regulation strategies (4). ED, manifests as maladaptive processing of external or internal stimuli when ER strategies and processes are impaired. Clinically, hyperarousal, mood instability, irritability, aggression and temper tantrums are observed. Reactions emerge excessive to social norms, and inappropriate or harmful to a person's interests. They are often influenced by internalizing or externalizing problems (1). Five dimensions of emotion dysregulation have been identified: reduced emotional awareness, inadequate emotional reactivity, intense experience and expression of emotions, emotional rigidity and difficulty in cognitive reappraisal. These dimensions characterize a range of psychiatric disorders in varying degrees (4).

"Emotion dysregulation" and "problems in emotion regulation" are often used interchangeably, but Cicchetti and colleagues note that the two terms have different meanings. According to these authors, "emotion regulation problems" involve the inappropriate or maladaptive application of emotion regulation strategies that are still available for appropriate use, whereas "problems in emotion regulation" reflect the absence of these strategies. This distinction is particularly important for treatment so that different interventions can be planned depending on the presence, absence, or maladaptive use of emotion regulation strategies. But the biggest problem here is that there are still not enough tools to examine this (4).

Currently, there are no direct measures of emotion dysregulation, and instruments for the assessment of emotion regulation are the only ones that exist. These measures are the Generalized Expectancies for Negative Mood Regulation Scale (NMR-S), the Emotion Regulation Questionnaire (ERQ), the Difficulties in Emotion Regulation Scale (DERS), the Cognitive Emotion Regulation Questionnaire (CERQ]), the Affective Style Questionnaire (ASQ) and the Emotion Regulation of Others and Self (EROS) (4).Among these, there are Turkish validity and reliability studies of the Emotion Regulation Questionnaire (ERQ) and the Difficulties in Emotion Regulation Scale (DERS).

Keywords: emotional regulation, emotional dysregulation, emotion regulation problems

References

1. Vetter N, Muratori P, Maris S, Ford IJ, Paulus FW, Ohmann S, et al. Emotional Dysregulation in Children and Adolescents With Psychiatric Disorders. A Narrative Review. 2021 [cited 2023 Sep 19];12:628252. Available from: www.frontiersin.org
2. Yilmaz Kafali H, Kayan Ocakoğlu B, Işık A, Ayvalık Baydur ÜG, Müjdecioğlu Demir G, Şahin Erener M, et al. Theory of mind failure and emotion dysregulation as contributors to peer bullying among adolescents with attention-deficit/hyperactivity disorder. Children's Health Care. 2021;
3. Freitag GF, Grassie HL, Jeong A, Mallidi A, Comer JS, Ehrenreich-May J, et al. Systematic Review: Questionnaire-Based Measurement of Emotion Dysregulation in Children and Adolescents. J Am Acad Child Adolesc Psychiatry [Internet]. 2023 [cited 2023 Sep 19];62(7):728–63. Available from: www.jaacap.org
4. D'Agostino A, Covanti S, Rossi Monti M, Starcevic V. Reconsidering Emotion Dysregulation. Vol. 88, Psychiatric Quarterly. Springer New York LLC; 2017. p. 807–25.

[Abstract:0572] [Tic disorders]
Guanfacine for the Treatment of Tourette Syndrome

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Tourette Syndrome is a neurodevelopmental condition that is characterized by the presence of multiple motor tics and at least 1 vocal tic that persists for at least 1 year. Epidemiologic studies that used current diagnostic criteria have consistently shown that the prevalence figures for TS in school children range from 0.4% to 1.5% across all cultures (1). Usually, it is accompanied by various comorbidities like attention-deficit hyperactivity disorder, obsessive-compulsive disorder, and sleep disorders. The treatment of TS can be broadly classified into non-pharmacological and pharmacological treatment. Non-pharmacological therapy includes various behavioural interventions that can be helpful in situations when patients are tolerant of medical treatments. As far as the drug therapy is concerned, commonly used alpha agonists are clonidine and guanfacine, and the atypical antipsychotics commonly used are risperidone and aripiprazole (2). Guanfacine is a phenyl acetyl guanidine derivative that acts as a selective agonist of central alpha 2 adrenergic receptors; it has been used to treat children with behavioural problems, tics, sleep disorders, Tourette's syndrome, opioid withdrawal syndrome, and nicotine dependence (3). Compared to clonidine, guanfacine produces less sedation and hypotension but is more efficient than clonidine in increasing Prefrontal cortex (PFC) working, enhancing efficacy at postsynaptic sites in PFC. Guanfacine is also commonly used to stop irrelevant motor and vocal tics in patients with Tourette's syndrome and children with ADHD and tics who mainly cannot consume stimulant medications

(4). There was moderate-quality evidence from two studies in children (n = 58) that guanfacine, when compared with placebo, produced a large effect in tics following 4–8 weeks of treatment and did not appear to be associated with serious adverse effects (5). However, in a recently published small-scale randomized double-blind placebo-controlled trial in children and adolescents (50% of the guanfacine, 22% of the placebo group suffered from co-existing ADHD), guanfacine was not more efficacious than placebo in reducing tics. The most common adverse effects of guanfacine are sedation, headache, fatigue, dizziness, irritability, upper abdominal pain, and nausea, with sedation and fatigue usually emerging within the first 2 weeks of dosing and then generally remitting. Guanfacine may induce mania in children with a history or family history of bipolar disorder. Especially the extended release formulation of guanfacine may induce QTc prolongation, and therefore, patients should be monitored accordingly (6).

Keywords: tourette syndrome, tic disorder, alfa agonist, guanfacine

References

1- Pringsheim, T., Holler-Managan, Y., Okun, M. S., Jankovic, J., Piacentini, J., Cavanna, A. E., Martino, D., Müller-Vahl, K., Woods, D. W., Robinson, M., Jarvie, E., Roessner, V., & Oskoui, M. (2019). Comprehensive systematic review summary: Treatment of tics in people with Tourette syndrome and chronic tic disorders. Neurology, 92(19), 907-915. https://doi.org/10.1212/WNL.0000000000007467

2- Rizwan, M., Naguit, N., Jakkoju, R., Laeeq, S., Reghefaoui, T., Zahoor, H., Yook, J. H., & Mohammed, L. (2022). Efficacy of Behavioural Intervention, Antipsychotics, and Alpha Agonists in the Treatment of Tics Disorder in Tourette's Syndrome. Cureus, 14(2). https://doi.org/10.7759/cureus.22449

3- Mechanism of action of guanfacine: a postsynaptic differential approach to the treatment of attention deficit hyperactivity disorder (adhd) Alamo C, López-Muñoz F, Sánchez-García J. https://pubmed.ncbi.nlm.nih.gov/27254403/ Actas Esp Psiquiatr. 2016;44:107–112.

4- Guanfacine for the treatment of cognitive disorders: a century of discoveries at Yale. Arnsten AF, Jin LE. https://pubmed.ncbi.nlm.nih.gov/22461743/ Yale J Biol Med. 2012;85:45–58.

5- Hollis, C., Pennant, M., Cuenca, J., Glazebrook, C., Kendall, T., Whittington, C., Stockton, S., Larsson, L., Bunton, P., Dobson, S., Groom, M., Hedderly, T., Heyman, I., Jackson, G. M., Jackson, S., Murphy, T., Rickards, H., Robertson, M., & Stern, J. (2015). Clinical effectiveness and patient perspectives of different treatment strategies for tics in children and adolescents with Tourette syndrome: A systematic review and qualitative analysis. Health Technology Assessment (Winchester, England), 20(4), 1-450. https://doi.org/10.3310/hta20040.

6- Roessner, V., Eichele, H., Stern, J. S., Skov, L., Rizzo, R., Debes, N. M., Nagy, P., Cavanna, A. E., Termine, C., Ganos, C., Münchau, A., Szejko, N., Cath, D., Müller-Vahl, K. R., Verdellen, C., Hartmann, A., Rothenberger, A., Hoekstra, P. J., & Plessen, K. J. (2022). European clinical guidelines for Tourette syndrome and other tic disorders—Version 2.0. Part III: Pharmacological treatment. European Child & Adolescent Psychiatry, 31(3), 425-441. https://doi.org/10.1007/s00787-021-01899-z

[Abstract:0573] [Schizophrenia and other psychotic disorders]
Pharmacological Treatment of Craving in Pediatric Substance Use Disorder

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Craving reduction, a critical aspect of addiction treatment, is the focus of this summary, which explores various promising pharmacological interventions to address this challenge across different types of substance abuse. Craving is a sporadic condition characterized by a strong urge for substance consumption. Its incorporation into the diagnostic criteria of the DSM-5 has elevated it to a fundamental clinical concept in the evaluation and management of substance use disorders (SUDs)1.

Systematic reviews have shown the positive effects of NAC in reducing craving symptoms in SUDs 2,3. NAC is used in combination with other therapeutic interventions to reduce cravings and withdrawal symptoms in adolescent cannabis use disorder 4.

Two medications approved by the FDA for Alcohol use disorder treatment have been found to be effective in reducing alcohol craving. Naltrexone, a well-established medication, plays a crucial role in reducing alcohol cravings and preventing relapse. It achieves this by diminishing the rewarding effects of alcohol. In adolescents with alcohol use disorder, compared to placebo, naltrexone reduced the likelihood of drinking and heavy drinking, blunted alcohol cravings in both the laboratory and natural environment and altered subjective responses to alcohol consumption 5. These findings underscore the importance of naltrexone as an anti-craving drug for the long-term treatment of alcohol addiction. Research indicates that extended-release naltrexone administered via injection may assist in reducing cravings in opioid use disorder 6,7.

In adults, stimulant use disorders, particularly methamphetamine addiction, have posed substantial treatment challenges. Agonist therapy with stimulants commonly used for ADHD has demonstrated the potential to reduce cravings for methamphetamine 8. Cocaine addiction has also been a focus of research into craving reduction. Modafinil, in some studies such as Kampman et al. in 2015, appeared useful in reducing cocaine craving and use 9. However, the evidence has not been consistent, with other trials failing to demonstrate a significant benefit 10.
Addressing cannabis use disorder and its associated cravings has seen the exploration of various pharmacological interventions. Baclofen, while showing dose-dependent reductions in cannabis cravings, has not consistently translated into relapse prevention or mood enhancement 11. Studies have examined other agents like gabapentin, dronabinol, nabilone, and nabiximols, all of which have shown potential in reducing cannabis cravings 12,13. Haney et al. in 2013 found that high-dose nabilone significantly decreased craving and also had a positive effect on the time to relapse and duration of withdrawal in cannabis users 14.
In cases of co-occurring schizophrenia and cannabis use disorder, clozapine has exhibited greater decreases in marijuana craving and improved schizophrenia symptoms compared to risperidone15.
In summary, pharmacological interventions offer valuable tools in the multifaceted challenge of craving reduction in substance use disorders. While some medications like naltrexone has established their effectiveness in alcohol use disorder, ongoing research into other substances of abuse is shedding light on additional treatment options. The field continues to evolve, emphasizing the importance of tailoring treatment approaches to individual needs and circumstances.

Keywords: craving, substance use disorder, adolescent

References

1. Sinha R, Shaham Y, Heilig M. Translational and reverse translational research on the role of stress in drug craving and relapse. Psychopharmacology (Berl). Nov 2011;218(1):69-82.
2. Duailibi MS, Cordeiro Q, Brietzke E, et al. N-acetylcysteine in the treatment of craving in substance use disorders: Systematic review and meta-analysis. Am J Addict. Oct 2017;26(7):660-666.
3. Asevedo E, Mendes AC, Berk M, et al. Systematic review of N-acetylcysteine in the treatment of addictions. Braz J Psychiatry. Apr-Jun 2014;36(2):168-175.
4. Adams ZW, Marriott BR, Hulvershorn LA, et al. Treatment of Adolescent Cannabis Use Disorders. Child Adolesc Psychiatr Clin N Am. Jan 2023;32(1):141-155.
5. Miranda R, Ray L, Blanchard A, et al. Effects of naltrexone on adolescent alcohol cue reactivity and sensitivity: an initial randomized trial. Addict Biol. Sep 2014;19(5):941-954.

[Abstract:0574] [Schizophrenia and other psychotic disorders]
Clozapine treatment in the inpatient service

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Antipsychotic medications continue to be the primary choice for treating schizophrenia in children. The prevalence of individuals with a poor response to treatment in early-onset schizophrenia (EOS) is notably high, ranging from 34% to 50% according to Sikich et al. (2008)1. According to the Treatment Response and Resistance in Psychosis (TRRIP) Working Group in 2017, the definition of Treatment-Resistant Schizophrenia (TRS) includes no significant improvement in positive symptoms after treatment with 2 different non-clozapine antipsychotic drugs at a therapeutic dose (equivalent to ≥600 mg chlorpromazine), for an adequate duration (typically 4-6 weeks), with documented adherence 2. The only FDA-approved medication for TRS at present is clozapine; however, it is not approved for pediatric populations.

According to the Practice Parameter for the Assessment and Treatment of Children and Adolescents with Schizophrenia by the American Academy of Child and Adolescent Psychiatry (AACAP), it is recommended to contemplate a trial of clozapine for young individuals with schizophrenia spectrum disorders who are resistant to treatment 3. Numerous clinical trials and observational studies have demonstrated the effectiveness and tolerability of clozapine in EOS. Schneider et al. (2014) found that clozapine is linked to significant relief from symptoms and sustained clinical improvement in EOS 4. Sedation and hypersalivation were commonly reported (90%), and constipation was next in frequency (13%–50%). Neutropenia was seen in 6%–15% of cases and agranulocytosis (<0.1%). Although weight gain was common (up to 64%), followed by metabolic changes (8%–22%), treatment-onset diabetes was less frequent (<6%). Akathisia, tachycardia, and blood pressure changes were less commonly seen 5. It's important to note that children have a higher risk of experiencing agranulocytosis (6% compared to 1-2% in adults). Short-term studies suggest that children with childhood-onset schizophrenia (COS), when compared to adults with adult-onset schizophrenia (AOS),

tend to have a more robust response to clozapine. Additionally, children are more susceptible to akathisia (15%) than adults (3%) 6.

The unique benefits of clozapine go beyond treatment-resistant schizophrenia and encompass a range of other uses, including schizophrenia patients with psychogenic polydipsia at low doses as low as 300 mg/day 7, Parkinson's disease psychosis 8, treatment-resistant mania 9, schizophrenia patients with persistent aggression 10-12, and schizophrenia patients with a history of suicidality 13. Additionally, it has an anti-craving effect in schizophrenia patients with substance use 14. In our clinic, we also administer clozapine treatment for treatment-resistant schizophrenia, treatment-resistant mania, and patients with accompanying aggression.

Keywords: schizophrenia, clozapine, inpatient, adolescent

References

1. Sikich L, Frazier JA, McClellan J, et al. Double-Blind Comparison of First- and Second-Generation Antipsychotics in Early-Onset Schizophrenia and Schizo-affective Disorder: Findings From the Treatment of Early-Onset Schizophrenia Spectrum Disorders (TEOSS) Study. American Journal of Psychiatry. 2008;165(11):1420-1431.
2. Howes OD, McCutcheon R, Agid O, et al. Treatment-Resistant Schizophrenia: Treatment Response and Resistance in Psychosis (TRRIP) Working Group Consensus Guidelines on Diagnosis and Terminology. Am J Psychiatry. Mar 1 2017;174(3):216-229.
3. McClellan J, Stock S. Practice Parameter for the Assessment and Treatment of Children and Adolescents With Schizophrenia. Journal of the American Academy of Child & Adolescent Psychiatry. 2013;52(9):976-990.
4. Schneider C, Corrigall R, Hayes D, et al. Systematic review of the efficacy and tolerability of clozapine in the treatment of youth with early onset schizophrenia. Eur Psychiatry. Jan 2014;29(1):1-10.
5. Adnan M, Motiwala F, Trivedi C, et al. Clozapine for Management of Childhood and Adolescent-Onset Schizophrenia: A Systematic Review and Meta-Analysis. J Child Adolesc Psychopharmacol. Feb 2022;32(1):2-11.

[Abstract:0577] [Others]

Psychiatric disorders in children with limb loss and parental education

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In the world, millions of children are faced to some traumatic stressor every year. Limb loss is one of the most important results of these traumatic events. Motor vehicle accidents, natural disasters (e.g., earthquakes, floods, hurricanes),life-threatening illnesses, physical abuse, kidnapping, violence or similar traumas could end up with amputation. After a major stress such as limb loss, childrens' responses include avoidance, reexperiencing the event, and arousal as adults (1). Post traumatic stress disorder is the most common psychiatric disorder in children who are amputated after traumatic experiences. Mood, anxiety, sleep, conduct, learning, and attention problems are other comorbid conditions (2). The best approach to the injured child is to understand and treat his psychiatric symptoms and not to forget supporting the family. Sometimes psychiatric help and parental education through this difficult period is neccessary to heal.

Keywords: psychiatric disorders, limb loss, parental education

References

1)] American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th edition (DSM-IV). Washington, DC: American Psychiatric Association; 1994.
2) Psychological aspects of traumatic injury in children and adolescents Ernesto Caffo, MD*, Carlotta Belaise, PsyD Department of Psychiatry and Mental Health, University of Modena, Largo del Pozzo 71, 41100 Modena, Italy Child Adolesc Psychiatric Clin N Am 12 (2003) 493 – 535

[Abstract:0585] [Others]

Are Early Childhood Psychiatric Symptoms Actually Predictors? With the Perspective of Developmental Psychopathology

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The field of developmental psychopathology is the study of how certain disorders develop, what happens to children who develop these disorders over time, and what can be done in early intervention or in the course of these children.
Psychopathology in children is considered as an adaptive failure. This adaptive failure involves deviation from typical age-appropriate development or behavior, exaggeration or reduction of behavior. Process is important when examining this typical and atypical development. This adaptive failure does not occur suddenly, but develops over time. When examining the developmental process, it is important to remember that development is cumulative. At the same time, developmental pathways are probabilistic.
Therefore, early difficulties may not always lead directly to dysregulation.
Young children are more frequently referred for treatment in child psychiatry clinics and increasing evidence in recent years shows the importance of early signs of disorders that have not been diagnosed until school age. Some surprising similarities have been noted between psychopathological conditions in young and older children.
At the same time, there is evidence that disorders with earlier onset may be more severe and have more persistent courses and worse outcomes. For many years, psychopathology in infancy and early childhood has been a controversial topic focusing on the meaning of atypical infant behaviors as risk indicators for later psychopathology or as symptoms of existing psychiatric disorders.
Early childhood psychopathology has long-lasting deleterious effects across several domains of psychosocial functioning, often beyond the effects of ongoing or recurrent adolescent psychopathology.
Some research has demonstrated the importance of childhood psychopathology by finding a high risk of mental health problems persisting from school age through adolescence and into adulthood.
Some longitudinal studies have linked behavioral problems in childhood to psychiatric problems in adulthood.
There have been concurrent associations between psychopathology and poorer functioning in youth.
Some studies have shown that early childhood psychopathology is associated with concurrent global impairment. There is evidence that young children with attention deficit hyperactivity disorder and oppositional defiant disorder show impairments in academic performance, family functioning, parent-child relationships, behavioral functioning, peer relationships, and specific associations between disorders and domains of functioning.
Another study shows that internalizing disorders are associated with concurrent impairment in interpersonal domains, including poorer social functioning among preschool children with depression and poorer family functioning among young children with anxiety disorders.
In one study, externalizing problems at age 3 predicted both externalizing and internalizing problems in pre-adolescence in both sexes.
One study showed that children with preschool-onset disruptive behavior disorders, depression and anxiety were more likely to be both aggressors and victims of peer aggression 2 years later than their peers without psychiatric disorders. Children with disruptive behavior disorders have been shown to show poorer global functioning throughout early childhood.
There is evidence that anxiety disorders prospectively predict poorer social functioning for 3 years in early childhood. In this presentation, we wanted to discuss the current data and review the literature up to date.

Keywords: early childhood, developmental psychopathology, predictors, continuity

References

1.Egger HL, Angold A (2006) Common emotional and behavioural disorders in preschool children: presentation, nosology and epidemiology. Journal of Child Psychology and Psychiatry 47:3; 4, 313-37.
2.Luby, J. L., Belden, A. C., Pautsch, J., Si, X., & Spitznagel, E. (2009). The clinical significance of preschool depression: Impairment in functioning and clinical markers of the disorder. Journal of Affective Disorders, 112 (1–3), 111–119. doi:10.1016/j.jad.2008.03.026
3.Belden, A. C., Gaffrey, M. S., & Luby, J. L. (2012). Relational aggression in children with preschool onset (PO) psychiatric disorders. Journal of the American Academy of Child and Adolescent Psychiatry, 51(9). doi:10.1016/j.jaac.2012.06.018
4.Danzig, A. P., Bufferd, S. J., Dougherty, L. R., Carlson, G. A., Olino, T. M., & Klein, D. N. (2013). Longitudinal associations between preschool psychopathology and school-age peer functioning. Child Psychiatry and Human Development, 44(5), 621–632. doi:10.1007/s10578-012-0356-4
5.Finsaas MC, Kessel EM, Dougherty LR, Bufferd SJ, Danzig AP, Davila J, Carlson GA, Klein DN. Early Childhood Psychopathology Prospectively Predicts Social Functioning in Early Adolescence. J Clin Child Adolesc Psychol. 2020 May-Jun;49(3):353-364. doi: 10.1080/15374416.2018.1504298. Epub 2018 Oct 11. PMID: 30307751; PMCID: PMC6459738.)

[Abstract:0586] [Neuroscience: Neuroimaging-Genetic Biomarkers]
Neurobiological Basis of Early Childhood Developmental Disruptions and Potential Biomarkers

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Neurobiological Basis of Early Childhood Developmental Disruptions and Potential Biomarkers
Neurobiologic basis of psychopathologies in early childhood period have a crucial effect for understanding how psychiatric disorders develop, also, finding the unique “biomarkers” of each psychiatric disorders can be seen as a milestone for alleviation of symptoms, lowering the costs for the family and society, and ultimately, treating and prevention from the disorder itself. With the increasing quality of blood-based genetic mapping systems, medical functional imaging techniques and other non-invasive methods like electroencephalogram (EEG), searching for neurobiologic clues of psychiatric disorders has become more on-the-spotlight.
Anxiety and other internalizing disorders have been studied for this purpose. For anxiety, neurodevelopmental models of anxiety posit that vulnerability may arise from aberrant development of neural networks that mediate typical anxiety-related behaviors. These networks are hypothesized to be established during brief periods of heightened plasticity early in life (Leonardo et al., 2008; Bosl et al., 2023). Biomarkers for anxiety disorders have been extracted from EEGs using event-related potentials (ERP) to discover differences between participants. For example, the error-corrected negativity ERP has been found to be increased in anxious youth and to predict increased risk for anxiety across development (Meyer, 2022). Additionally, ERP studies based on startle reactivity have differentiated different internalizing phenotypes from each other and controls, also supporting the potential of this measure as an anxiety biomarker (Klumpp and Shankman, 2018). In another study, Winebrake et al., (2022) found that hair cortisol concentration and diurnal salivary cortisol slope were related with social fear behaviours in childhood in 12-month-old children. In another study searching the relation between inflammatory markers and internalizing disorders, authors found that higher Interleukin-6 (IL-6) levels in 12 months predicted higher scores in internalizing and externalizing problems at 30 months (Voltas et al., 2017). In another study searching for treatment markers in adolescents with Major Depressive Disorder (MDD), volume and resting state functional connectivity of Dorsolateral part of the prefrontal cortex may serve as a potential neurobiological treatment marker that are mainly associated with symptom improvement (Lee at al., 2023).
In neurodevelopmental disorders, nonlinear analysis of EEG time series is a promising approach to functional brain analysis and biomarker discovery, and has demonstrated potential for very early prediction of emerging autism spectrum disorder and ADHD (Catarino et al., 2011; Gurau et al., 2017; Catherine Joy et al., 2022). In another study, authors found that aperiodic power spectral slopes of EEGs can be reliably measured both in 1-month-old infants and adolescents, and have different aperiodic exponents both in ADHD-diagnosed adolescents and 1-month-olds which have family history of ADHD from healthy controls (Karalunas et al., 2022). These results are explained with imbalances in inhibitory and excitatory neurons, and aperiodic exponents are reliable and useful biomarkers of these balance. In another study, authors found that exposing the stress in early life can be “kept record” in Ankyrin-3 synthesizing gene, Ank3, could affect the working memory in adulthood (Luoni et al., 2016).

Keywords: Neurobiology, biomarker, infant

References
1- Bosl WJ, Bosquet Enlow M, Lock EF, Nelson CA. A biomarker discovery framework for childhood anxiety. Front Psychiatry. 2023 Jul 17;14:1158569. doi: 10.3389/fpsyt.2023.1158569. PMID: 37533889; PMCID: PMC10393248.
2-Leonardo ED, Hen R. Anxiety as a developmental disorder.Neuropsychopharmacology Off Publ Am Coll Neuropsychopharmacol. (2008) 33:134–40. doi: 10.1038/sj.npp.1301569
3-Meyer A. On the relationship between the error-related negativity and anxiety in children and adolescents: from a neural marker to a novel target for intervention. Psychophysiology. (2022) 59:e14050. doi: 10.1111/psyp.14050
4-Klumpp, H., Shankman, S.A. (2018). Using event-related potentials and startle to evaluate time course in anxiety and depression. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 3, 10-18
5- Winebrake DA, Almeida CF, Tuladhar CT, Kao K, Meyer JS, Tarullo AR. Social Fear in US Infants: The Roles of Hair and Salivary Cortisol. Yale J Biol Med. 2022 Mar 31;95(1):71-85. PMID: 35370495; PMCID: PMC8961713.

[Abstract:0587] [Addiction Psychiatry]
The Analyses of Addictive Substances – Challenges for Interpretation and Key Lines for Physicians

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INTRODUCTION: In this illuminating session we will delve deep into the intricate world of analyzing addictive and illicit substances. This comprehensive exploration will shed light on the multifaceted aspects of substance analysis, emphasizing the pivotal roles of pre-analytical, analytical, and post-analytic processes in the accurate interpretation of results.
Pre-Analytical Processes:

Urine as a Preferred Sample: Although all sample sample types can be used for addictive drug analysis, urine samples stand as the preferred choice due to their practicality and relative ease of collection. However, they are not without their challenges. A significant issue arises in the form of potential sample tampering, which necessitates meticulous attention during the sample collection process.
Chain of Custody and Urine Integrity Tests: To safeguard the integrity of urine samples, a secure chain of custody must be maintained throughout the collection, storage, and transportation phases. Additionally, we will explore the application of urine integrity tests. These tests are pivotal as they are run before analysis to assess whether the sample has undergone structural impairment or dilution.
Dilution as a Tampering METHOD: One common method of tampering with urine samples is dilution. Diluted samples can be the result of various factors, including excessive water consumption, diuretic intake, or even the addition of water to the sample. Crucially, clinicians must be aware of the potential for sample dilution when interpreting test results. If a sample is identified as adulterated or structurally impaired, it should be unequivocally rejected.
Analytical and Post-Analytical Processes:
Two-Step Analysis Strategy: Addictive substance analysis typically follows a two-step approach. The screening test serves as the initial phase, while confirmatory analysis constitutes the subsequent stage.
Screening METHODS: For screening analysis, laboratories traditionally employ Immunoassay methods, which are highly effective. However, modern times have witnessed the emergence of chromatographic methods as viable alternatives.
Confirmatory Analysis: For confirmatory analysis, gold standard methods such as Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) and Gas Chromatography-Mass Spectrometry (GC-MS) are indispensable. In the context of legal evidence, confirmation test results hold paramount significance. The suggestion for forensic samples is to confirm all positive and negative screening results. Conversely, in clinical toxicology, as negative predictive value of screening tests are high, confirmation for only positive samples is preferred to mitigate the risk of false positives.
Challenges with Immunoassay Methods: Immunoassay methods, while highly effective, tend to evaluate analytes as groups, often under headings like "amphetamine group substances." This grouping approach, while convenient, can potentially lead to false positive results due to cross-reactivity.
Properties of Occasionally Abused Substances:
Cannabis: Cannabis sativa and Cannabis indica are natural forms used for cannabis extraction. Recreational extraction product tetrahidrocannabis (THC) is abused and addictive form. The other natural forms cannabidiol (CBD) and their metabolites are used in pharmaceutical industries. THC is distributed into different parts of the body where it is metabolized, excreted, or stored. The THC that is stored in fatty tissue gradually reenters the bloodstream at very low levels, permitting metabolism and eventual excretion. THC is metabolized extensively in the liver and the major metabolite is delta-9 tetrahydrocannabinol 9 carboxylic acid (THCA or THC-COOH). The immunoassay procedures detect multiple metabolites of marijuana, while the confirmatory test specifically identifies and quantitates delta-9 THCA. To be reported positive, a specimen must test positive at or above the 50 ng/mL cutoff for the initial test and have a concentration of the delta-9 THCA that is equal to or greater than the 15 ng/mL confirmatory cutoff level.
The main metabolite of THC in urine is 9-carboxy-THC (THC-COOH) and its glucuronide conjugate. The detection window of THC-COOH for single use is 1-3 days, it prolongs to 30 days in chronic use. Drugs like Ibuprofen, Naproxen, Niflumic Acid, Dranabinol (Medical cannabis treatment), Efavirenz (Viral infection treatment), Visine eye drops and Pantoprazole can cause cross-reaction.
Cocaine: Cocaine is an alkaloid obtained from the leaves of the coca plant. It is stimulant, euphoric like amphetamines. In urine the principle of laboratory assays is to detect the inactive metabolite benzoylecgonine (BEG). Detection window of BEG is 1-3 days after a single dose using a test cutoff of 300 ng/mL and it can prolong to7-10 days in case of overuse and renal disorders. Cocaine and benzoylecgonine are not significantly stored in the body. Therefore, even after heavy, chronic use, urine specimens may be negative when collected several days after last.
Opioids: Opioids have natural, semisynthetic or synthetic forms some of which are prescribed for their antitussive, analgesic, and antidiarrheic effects. However, opioids such as heroin, hydrocodone, hydromorphone can be abused. Urine detection window of morphine and codeine are 1-2 days, detection window of heroin is only 3-5 minutes, however it is 12-24 hours for the metabolite of heroin (6-monoasetylmorphine(6-MAM)).
Drugs containing codeine-morphine can cause opiate positivity. For a correct interpretation of laboratory report clinicians should be aware of the metabolism of opioid group substances. Heroin (Diacetyl morphine) is metabolized to 6-monoacetylmorphine (6-MAM) and morphine. Codeine is metabolized to morphine. When a drug containing codeine is used, morphine and codeine are found together. 6-MAM is also converted to morphine and its metabolites. 6-MAM is not formed when codeine is taken. And morphine is only converted to its glucuronide forms not to 6-MAM and codeine. Because of prescription drugs and cross reactivity with other drugs like quinolone antibiotics, rifampicin, tramadol and poppy seeds the cut-of concentration was raised from 300 to 2000 ng/mL for immunoassay screening tests.
Amphetamines: Amphetamine group substances include Amphetamine, Methamphetamine, Methylenedioxymethamphetamine (MDMA), Methylenedioxyamphetamine (MDA) andn Methylenedioxyethylamphetamine (MDEA). Amphetamine and methamphetamine are central nervous system stimulants that initially produce euphoria, and enhances attention and performance, but exhaustion eventually occurs and performance deteriorates as the effects wear off. Nearly half of a methamphetamine dose is recovered from urine

unchanged. Amphetamine is excreted as both unchanged amphetamine and as hydroxylated metabolites which varies widely with urinary pH. A single therapeutic dose of amphetamine or methamphetamine can produce a positive urine for one day. High-dose abusers may continue to generate positive urine specimens for 2 to 4 days after last use. Cross-reaction of pseudoephedrine, ephedrine, selegiline, metformin with amphetamine group drugs is highly faced. They can be discriminated only by confirmation analysis.
Novel Psychoactive Substances (NPS) and Other Drugs: New psychoactive substances (NPS) are designed to mimic illicit drugs, such as cannabis, cocaine, MDMA. They are classified into four groups: synthetic stimulants, synthetic cannabinoids, synthetic hallucinogens and synthetic depressants (which include synthetic opioids and benzodiazepines). Detection of these substances are usually hard to detect with routine immunoassay screening methods. They can only be detected by chromatographic techniques with wide screening methods. In recent years gabapentin and pregabalin are also highly abused drugs which are sometimes combined with other stimulant substances.
CONCLUSION: For physicians getting knowledge about the main issues of preanalytical, analytical and postanalytical phases of laboraory analysis and metabolism of addictive substances could lead to interpret reports more accurately and make informed decisions in both clinical and forensic settings.

Keywords: screening test, confirmation analysis, addictive substances

[Abstract:0588] [Specific learning disabilities]

Are only numbers and letters mixed up? The relationship between sensory processing and Specific Learning Disorder

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BACKGROUND: Specific Learning Disorder (SLD) is a common neurodevelopmental condition that affects an individual's ability to acquire and apply foundational academic skills. Recent research suggests that there may be a link between sensory processing and SLD, as sensory abnormalities could contribute to the cognitive challenges faced by those with SLD. This review aims to systematically explore and analyze existing literature to clarify the relationship between sensory processing and SLD.

OBJECTIVE: The objective of this comprehensive review is to investigate and synthesize current knowledge on the association between sensory processing difficulties and Specific Learning Disorder. The review aims to identify patterns, gaps, and trends in the literature to provide a clearer understanding of how sensory processing factors may impact the development and manifestation of SLD.

METHODS: A systematic and thorough search of electronic databases, including PubMed, PsycINFO, and Google Scholar, was conducted to identify relevant studies published up to September 2023. Studies examining the relationship between sensory processing and SLD in children and adolescents were included. The selected studies were critically appraised for their quality and relevance. Data extraction and synthesis were performed to identify common themes and findings across the selected studies.

RESULTS: The review reveals a complex interplay between sensory processing and SLD. While some studies suggest that sensory processing difficulties are more prevalent in individuals with SLD, others propose that these difficulties may be secondary to the learning challenges. Sensory processing factors, such as hypersensitivity or hyposensitivity to sensory stimuli, may impact attention, executive functions, and academic performance in individuals with SLD. Furthermore, evidence suggests that sensory interventions and accommodations could be beneficial in addressing some of the challenges associated with SLD.

CONCLUSION: In conclusion, this comprehensive review highlights the intricate relationship between sensory processing and Specific Learning Disorder. While the exact nature of this relationship requires further investigation, it is evident that sensory processing difficulties can significantly affect the lives of individuals with SLD. The findings underscore the importance of considering sensory factors in the assessment and intervention strategies for individuals with SLD. Future research should focus on elucidating the causal mechanisms, refining assessment tools, and developing effective interventions to better support individuals with SLD facing sensory processing challenges. Understanding this relationship can lead to more targeted and holistic approaches for addressing the needs of individuals with SLD, ultimately improving their educational outcomes and overall quality of life.

Keywords: sensory processing, specific learning disorder, sensory integration therapy

[Abstract:0589] [Psychopharmacology]
The Relationship of Treatment and Genetics in ADHD

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ADHD is a neurodevelopmental disorder with a neurobiological basis. In parallel with the increase in knowledge about the neurobiology of ADHD, there has been an increase in the number of genetic and epigenetic studies.
In recent years, there has been an increase in studies on the genetics of central nervous system diseases. The reason for this increased interest is the prediction of high heritability in these diseases and the discovery of oligenetic susceptibility genes. Thus, genetic studies provide hope for the future in understanding the genetic causes of these diseases.
ADHD is one of the psychiatric disorders with the highest genetic weight. It has not been fully revealed how this genetic transition in ADHD occurs. Genetic transmission in ADHD has been investigated through family studies, adoption, twin studies, molecular genetic studies, and association studies. In recent years, more advanced genetic research including association studies, copy number changes studies and pharmacogenetic studies examining the entire genome has been mentioned.
Environmental factors and epigenetic factors as well as genetic factors have been investigated in ADHD. Childhood-onset ADHD is a suitable disorder for epigenetic studies. As a matter of fact, the effects of epigenetic factors such as prenatal stress and maternal care have been examined in studies. Studies have shown more ADHD symptoms in children exposed to prenatal stress. Again, an increased risk of developing ADHD has been found in children exposed to stress during the prenatal period. genotype-phenotype relationship ADHD presents a complex picture in terms of appearance and causality.
ADHD appears to be a complex problem caused by both genetic and environmental factors. Although it has been determined in previous studies that ADHD has familial and hereditary and familial transmission; has not shown a consistent Mendelian pattern of inheritance. For this reason, many studies on the molecular genetic basis of ADHD have emerged in recent years. It is thought that the lack of complete overlap between the results of studies investigating the genes responsible for ADHD is due to the heterogeneity of the disorder, the heterogeneity of different symptom clusters at different ages, and statistical limitations. In order to overcome these limitations, it would be appropriate to separate genetic studies according to clinical subtypes such as attention, hyperactivity and impulsivity, as well as comorbidity and their continuation in adolescence. Genetic data may help reveal the etiology of this disorder, understand the clinical picture, and predict the course of the disorder. Moreover, genetic studies seem to be able to help predict response to drug therapy and drug side effects in the near future.

Keywords: Attention deficit hyperactivity disorder, genetic,treatment

[Abstract:0590] [Others]
Non-Psychotherapeutic Approaches for The Treatment of Genitopelvic Pain/Penetration Disorder

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Genito-pelvic pain/penetration disorder (GPPPD) can be an extremely bothersome condition for patients, and a tough challenge for professionals regarding its assessment and treatment. Peripheral and central mechanisms have been associated with some types of genitopelvic pain penetration disorder (GPPPD), but common to many presentations is a configuration of affective, cognitive, behavioral, and relational correlates, including anxiety, depressive symptoms, pain catastrophization, and relational disturbances. Optimal assessment and treatment of GPPPD require an integrated, concurrent multidisciplinary strategy that targets all likely contributors to the pain.Medical approaches, pelvic floor physical therapy, and couples cognitive behavioral therapy are the treatment mainstays. Cognitive-behavioral psychotherapy has been the most popular and studied psychotherapeutic intervention in GPPPD, and can be performed individually, as a couple or as a group. In addition to psychotherapy, different treatment methods have also been researched [1].
It has been suggested that topical applications of anesthetics and corticosteroids moderately reduce pain in dyspareunia. On the other hand the evidence of topical anesthetics and corticosteroids and injections of botulinum toxin benefit in the treatment of vaginismus have been found modest, and they are not recommended as a first-line treatment. In a study in which botulinum toxin was applied in the treatment of vaginismus, it was emphasized that increasing the dose was ineffective.. Surgery (vestibulectomy) in cases of localized vulvodynia is effective when other options fail.

Pelvic floor physiotherapy and electrostimulation seem to have benefits too, both in dyspareunia and vaginismus. The goals of these interventions are to decrease the degree of muscle tension at rest, increase the attention directed to this muscle group and its control, increase the elasticity of the vaginal introitus, and expose the patients to penetration [2].
Vaginal moisturizers and lubricants appear to be effective for many women and are recommended as the first line of therapy. Vaginal estrogen often serves as the secondline treatment. Ospemifene is a recently FDA-approved selective estrogen receptor modulator (SERM) that is delivered orally for the treatment of moderate to severe dyspareunia in women with vulvar and vaginal atrophy due to menopause. Vaginal DHEA insert (prasterone) can be another treatment option. A randomized, double-blind, placebo-controlled phase III trial demonstrated improvement in objective measures of vulvovaginal atrophy and decrease in pain with sexual activity (dyspareunia) [3].
A number of medications, hormonal therapies, and non-hormonal interventions such as lubricants/ moisturizers, physical therapy, surgery are available for the treatment of GPPD with recent publications outlining appropriate populations, effectiveness, and safety for specific interventions, detailed clinical recommendations, and new technologies in development.

Keywords: dyspareunia, medical treatment, non-psychotherapeutic interventions, vaginismus

References

1) Meana M, Binik YM.The Biopsychosocial Puzzle of Painful Sex. Annual Review of Clinical Psychology. 2022;18:471–95.
2) Dias-Amaral A, Marques-Pinto A. Female Genito-Pelvic Pain/Penetration Disorder: Review of the Related Factors and Overall Approach. Rev Bras Ginecol Obstet. 2018 Dec; 40(12):787-793. doi: 10.1055/s-0038-1675805.Epub 2018 Nov 14.
3) Lee JH, Lee JE, Harsh V, Clayton AH. Pharmacotherapy for Sexual Dysfunction in Women. Current Psychiatry Reports (2022) 24:99–109. https://doi.org/10.1007/s11920-022-01322-7.

[Abstract:0591] [Others]
General Principles and Components of Psychoeducation

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This presentation will provide a concise overview of the fundamental principles and key components of psychoeducation, a critical aspect of mental health care. Psychoeducation is rooted in person-centered principles, emphasizing collaboration, empowerment, and evidence-based content. Its components encompass a range of interventions, including workshops, individual counseling, informational materials, family involvement, skill building, relapse prevention, peer support, and goal setting. These elements collectively enable individuals to acquire the knowledge and skills necessary for effective self-management of their mental health conditions. Psychoeducation serves as a powerful tool in promoting mental well-being, reducing stigma, and enhancing the overall quality of life for those facing mental health challenges. By adhering to these principles and incorporating these components, mental health professionals can facilitate a holistic and individualized approach to care that empowers individuals to take an active role in their recovery journey.
This presentation will provide a concise overview of the fundamental principles and key components of psychoeducation, a critical aspect of mental health care. Psychoeducation is rooted in person-centered principles, emphasizing collaboration, empowerment, and evidence-based content. Its components encompass a range of interventions, including workshops, individual counseling, informational materials, family involvement, skill building, relapse prevention, peer support, and goal setting. These elements collectively enable individuals to acquire the knowledge and skills necessary for effective self-management of their mental health conditions. Psychoeducation serves as a powerful tool in promoting mental well-being, reducing stigma, and enhancing the overall quality of life for those facing mental health challenges. By adhering to these principles and incorporating these components, mental health professionals can facilitate a holistic and individualized approach to care that empowers individuals to take an active role in their recovery journey.

Keywords: Psychoeducation, Empowerment, Mental Health, Recovery

[Abstract:0592] [Mood disorders]
Postpartum Course of Bipolar Disorder: High-Risk Situations and Early Intervention Strategies

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Bipolar disorder is a severe illness that affects approximately 2.4% of the general population, characterized by chronic remitting and relapsing episodes of depression, hypomania, and mania (1).
Women with bipolar disorder are typically in their late adolescence and young adulthood at onset of the illness, placing them at risk for episodes throughout their reproductive years (2).
Hormonal fluctuations associated with reproductive events affect the course of bipolar disorder. Women are at risk for exacerbation of symptoms before menstruation, during the postpartum period, and during perimenopause (3). In particular, the perinatal period is a period of increased vulnerability for people with bipolar disorder (4).
There is general consensus among researchers that women are at heightened risk for first onset of mood episodes as well as recurrences of hypomania, mania or depression in the postpartum period (5).
Close monitoring and early intervention may reduce the risk of hypomanic, manic and depressive symptoms in women at risk of developing attacks after birth. In this sense, it is thought that it will be important to know the clinical characteristics of women at risk of having attacks after birth and to discuss prevention and early intervention opportunities.

Keywords: Bipolar Disorders, Postpartum Episode, High-Risk Situations, Early Intervention

References

1. Merikangas KR, Jin R, He J-P, et al. Prevalence and correlates of bipolar spectrum disorder in the world mental health survey initiative. Arch Gen Psychiatry. 2011; 68: 241–51.
2. Freeman M, Smith K, Freeman S, McElroy S, Kmetz G, Wright R, Keck P. The impact of reproductive events on the course of bipolar disorder in women. J Clin Psychiatry. 2002; 63:284–287.
3. Teatero ML, Mazmanian D, Sharma V. Effects of the menstrual cycle on bipolar disorder. Bipolar Disord. 2014;16:22–36.
4. Yatham LN, Kennedy SH, Parikh S V, et al. Canadian Network for Mood and Anxiety Treatments (CANMAT) and International Society for Bipolar Disorders (ISBD) 2018 guidelines for the management of patients with bipolar disorder. Bipolar Disord. 2018;20:97–170.
5. Di Florio A, Forty L, Gordon-Smith K, et al. Perinatal episodes across the mood disorder spectrum. JAMA Psychiatry. 2013;70:168–175.

[Abstract:0594] [Schizophrenia and other psychotic disorders]

Planning Pregnancy in Schizophrenia Patients: "Reducing or Discontinuing Medications, Relapse Prevention Strategies"

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The incidence of schizophrenia in the general population ranges from about 1% to 2%. Schizophrenia affects men and women equally, occurring in all cultures and socioeconomic classes. The peak age of onset in women is 25 to 35 years, which are also the peak childbearing years, and women with psychotic illnesses are likely to have more unplanned pregnancies than women without a psychotic illness.
There remains a lack of clarity regarding the natural course of psychotic illnesses during pregnancy. It has been proposed that this altered physiological and psychological state may exert a favorable effect on the course of illness; however, more recent studies suggest an elevated recurrence rate.Thus, pregnancy needs to be considered to be a high-risk period for relapse, particularly in the setting of discontinuation of maintenance treatment.As a result, there is an increase in the number of women requiring antipsychotic drug therapy who are likely to become pregnant. It is important to evaluate the safety of these drugs in pregnancy, as most women with a serious psychiatric illness cannot stop taking their medication, as this would interfere with their activities of daily living, especially taking care of an infant.
Current treatment guidelines do not provide much guidance regarding the treatment of schizophrenia during pregnancy. While the British Association for Psychopharmacology recommends using drugs at the lowest effective dose and as monotherapy, without choosing a first or second generation antipsychotic; NICE recommends that women who become pregnant while using a second-generation antipsychotic should be switched to a first-generation antipsychotic. The American College of Obstetricians and Gynecologists and the World Federation of Societies of Biological Psychiatry have not made any specific recommendations regarding the use of antipsychotics during pregnancy.
To date, no definitive association has been found between use of antipsychotics during pregnancy and an increased risk of birth defects or other adverse outcomes. However, there is a paucity of information, with a lack of large, well

designed, prospective comparative studies. Most babies exposed to antipsychotics in the womb perform on par with their peers at 12 months. There are very limited data for developmental deficits beyond this point.
If a planned or unplanned pregnancy develops in a woman using antipsychotics, the medication she is using should be continued. Pregnancy is not a suitable period to start a new medication and see its effectiveness.
The lowest effective dose should be determined, but emphasis should be placed on the effective dose, rather than the lowest. When the medication is inadequate, the fetus will be exposed to both the medication and the negative consequences caused by the uncontrolled disease.
If the dose of antipsychotics is reduced during pregnancy, increasing it to the effective dose after birth reduces the risk of exacerbation of the disease. If possible, a single drug should be used.
Psychoeducation can reduce the risks of pregnancy complications for women with schizophrenia. Short-term, focused psychotherapy can be useful for some pregnant women with schizophrenia.
Considering the risks of fetal developmental disorders and low or high birth weight, the development of the fetus should be closely monitored and detailed gynecological investigations should be performed (triple test, USG, regular clinical follow-up).
Since there is a high risk of relapse of the disease after birth, attention should be paid to the early signs of a new attack. Effective treatment should be continued, and the patient's medication should not be stopped or changed after birth unless there is a valid reason.
Clear recommendations and options regarding breastfeeding should be provided before birth, the benefits/harms of medications should be discussed, and suppression of breastfeeding by giving medications should be avoided.
Women who require treatment should always discuss the risks and benefits of pharmacotherapy with their doctors, and the adverse effects of untreated disease on both mother and fetus should be kept in mind.

Keywords: antipsychotics, pregnancy,schizophrenia,treatment,

References ,
1. Kuipers, E., Yesufu-Udechuku, A., Taylor, C., & Kendall, T. (2014). Management of psychosis and schizophrenia in adults: summary of updated NICE guidance. bmj, 348.
2. Ennis, Z. N., & Damkier, P. (2015). Pregnancy exposure to olanzapine, quetiapine, risperidone, aripiprazole and risk of congenital malformations. A systematic review. Basic & clinical pharmacology & toxicology, 116(4), 315-320.
3. Breadon, Carolyn, and Jayashri Kulkarni. "An update on medication management of women with schizophrenia in pregnancy." Expert Opinion on Pharmacotherapy 20.11 (2019): 1365-1376.
4. Galbally, M., Snellen, M., & Power, J. (2014). Antipsychotic drugs in pregnancy: a review of their maternal and fetal effects. Therapeutic advances in drug safety, 5(2), 100-109.
5. Gentile, S. (2010). Neurodevelopmental effects of prenatal exposure to psychotropic medications. Depression and anxiety, 27(7), 675-686.

[Abstract:0595] [Obsessive-compulsive disorders (OCD)]

The Relationship Between Sensory Processing and Obsessive-Compulsive Symptoms in Child and Adolescent Population

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BACKGROUND: Obsessive-compulsive disorder (OCD) is a condition where people have unwanted and repetitive thoughts or ritualistic behaviors. It's common among children and adolescents, with prevalence rates ranging from 1% to 4%. Research shows that children with OCD have abnormal brain activation during tasks that require inhibitory control, indicating poor inhibitory performance. These abnormalities are thought to be trait markers of OCD and can still be observed in adolescents whose disorder is in partial remission. The orbitofrontal cortex of individuals with OCD also shows abnormal spontaneous neural activity, which may contribute to the disorder's pathology. Sensory processing difficulties are associated with many mental and neurodevelopmental disorders, including OCD. Individuals with OCD frequently report experiencing sensory phenomena such as sensory over-responsivity, which refers to challenges in integrating and responding to everyday sensory experiences.
METHODS: A systematic and thorough search of electronic databases, including PubMed, PsycINFO, and Google Scholar, was conducted to identify relevant studies published up to September 2023. Studies examining the relationship between sensory processing and OCD in children and adolescents were included. The selected studies were critically appraised for their quality and relevance. Data extraction and synthesis were performed to identify common themes and findings across the selected studies.

RESULTS: Studies have found that these difficulties are associated with greater global impairment and co-occur with OCD symptoms. Altered sensory processing has also been linked to symptoms of OCD and anxiety disorders in children and adolescents. Interoception, the processing of internal bodily sensations, has also been found to play a role in OCD. While objective measures of interoception in OCD yield mixed results, subjective experiences of internal bodily sensations appear to be atypical and related to specific patterns of symptom dimensions. Selective attention deficits have also been observed in individuals with OCD, indicating a diminished ability to selectively ignore competing external and internal stimuli.
CONCLUSION: Overall, research suggests that sensory processing difficulties may contribute to the manifestation of OCD symptoms in children and adolescents. More research is needed to better understand the underlying mechanisms and to develop targeted interventions for sensory processing difficulties in individuals with OCD.

Keywords: sensory processing, obsessive-compulsive disorder, sensory integration therapy

[Abstract:0596] [Attention deficit hyperactivity disorder (ADHD)]
The Significance of Speech and Language Assessment with Children Attention Deficit Hyperactivity Disorder

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OBJECTIVE: Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder that starts in early childhood and tends to continue in adolescence and adulthood. ADHD negatively affects the functionality of the individual in developmental, health, and academic ways. The aim of this study is to examine the speech, language, and communication skills of school-age children with attention deficit and hyperactive disorder.
METHODS: The sample of the study consists of the combined type and attention-deficit-dominant type attention deficit and hyperactivity disorder (n=47) participants, and the control group (n= 40) typically developing participants. Turkish School Age Language Development Test, Turkish Articulation and Phonology Test, were applied to all participants.
RESULTS: SPSS program was used in the analysis of the data. Mann Whitney U and One Way ANOVA analyzes were performed to find the difference between the groups. As a result of the statistical analysis, a significant difference was found between the participants with typical development and those with attention deficit and hyperactivity disorder in terms of word count ($p<.001$). It was determined that participants with typical development outperformed participants with attention deficit and hyperactivity disorder in all tests. There was no difference in the two subtypes of the attention deficit and hyperactivity disorder group ($p>.001$).
CONCLUSION: It has been concluded that language, speech skills of children with attention deficit and hyperactivity disorder are lower than their peers with typical development. At diagnosis progress speech and language assessment is crucial for intervention of attention deficit and hyperactivity disorder children.

Keywords: Attention deficit and hyperactivity,language,speech, assessment, children,disorder

References

1. American Psychiatric Association (APA).Diagnostic and Statistical Manual of Mental Disorders (3rd ed., revised) (DSM III-R), 1987. Washington DG.
2. Daparma A, Geffner D, Martin N. Prevalence and nature of language impairment in children with attention deficit/hyperactivity disorder. Contemporary Issues in Communication Science and Disorders, 2011; 38, 119–125.
3. Nigg JT, Willcutt EG, Doyle AE, Sonuga-Barke ES. Causal heterogeneity in attention-deficit/hyperactivity disorder: Do we need neuropsychologically impaired subtypes? Biological Psychiatry, 2005; 57, 1224–1230.
4. Polanczyk GV, Lima MS, Horta BL, Biederman J, Rohde L A. The worldwide prevalence of ADHD: A systematic review and metaregression analysis. American Journal of Psychiatry, 2007;164(6), 942–948. https://doi.org/10.1176/ajp.2007.164.6.942
5. Sarıyer MN, Tadıhan Özkan E, Fidan ST. The Relationship Between Speech and Language Disorders and Working Memory: Children with Attention Deficit and Hyperactivity Disorder

[Abstract:0597] [Autism Spectrum Disorders]
Clinical Features of Adult High Functioning Autism Syndrome (Asperger)

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Autism Spectrum Disorder (ASD) is a collective term for neurodevelopmental disorders that present challenges with social interaction, verbal or nonverbal communication, repetitive behaviors, restricted interests, and/or sensory issues.1

In 2013, DSM-5 updated the diagnostic criteria, and replaced the DSM-IV and ICD-10 classifications of Asperger's Disorder and Pervasive Developmental Disorder (PDD) with the broader term ASD. With the updated DSM-5 classification, individuals with ASD and without intellectual disability are now identified as High-Functioning Autism Spectrum Disorder (HFASD). Asperger's syndrome was initially identified by Austrian physician Hans Asperger in 1944. This disorder was initially identified as an illness when it was included in the ICD. Later in 1994, in the DSM-IV, its features were established as a diagnosis and named “PDD”, frequently known as “ASD” in literature.1,2

The features of the disorder, named Asperger's Syndrome in the ICD, resemble those of the more established autistic disorder, specifically "impaired social interaction" and "restricted repetitive patterns of behavior, interests, and activities." 2. However, the considerable delays in cognitive development, language, and adaptive behaviors, which fall under the "classical" definitions of autistic disorder, are not present in HFASD. In other words, individuals with HFASD can communicate verbally and typically do not have concurrent intellectual disabilities like many with autism. Nonetheless, they may have challenges with verbal and nonverbal social communication despite possessing strong intellectual abilities in a specific field and a vast vocabulary. Individuals with this condition struggle to apply social courtesies, interpret non-verbal cues, initiate and respond to social interactions, comprehend and employ social gestures and facial expressions, modulate intonation in verbal communication, adapt behavior to suit various social settings, establish friendships, and reason. It is evident through restricted interests, a preference for repetition and established patterns, a strict adherence to rules, difficulty in adapting to change, and exhibiting exceptional proficiency in a specific academic discipline. These symptoms lead to significant impairment in crucial aspects of current functioning. Although these individuals share similar characteristics, differences exist in how they present with symptoms. Therefore, diagnosing adults require a less rigid methodology as learning the complete details of their early developmental history may not be feasible. Since the syndrome was not included in the DSM and ICD as a separate diagnosis before the 1990s, it was not well known among clinicians and many HFASD could not access the right diagnosis and treatment at the right time. The fact that it is still not included as an independent diagnosis in DSM-5 worries experts that it may prevent these people from accessing services. Therefore, recognizing the symptoms and characteristics of this disorder, investigating it as a pre-diagnosis, and increasing the knowledge and awareness of clinicians on this issue will increase access to treatment for individuals with this diagnosis.

Keywords: autism spectrum disorder, high functioning autism, Asperger's syndrome, clinical diagnosis, clinical features

References

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. American Psychiatric Publishing; 2013.
2. Gaus VL. Adult asperger syndrome and the utility of Cognitive-Behavioral Therapy. Journal of Contemporary Psychotherapy (2011); 41, 47-56.

[Abstract:0598] [Autism Spectrum Disorders]
Cognitive Behavioral Therapy of High-Functioning Autism

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The DSM-5 replaces the previous diagnoses of autistic disorder, Asperger's disorder, and pervasive developmental disorder with the more general term Autism Spectrum Disorder (ASD), with the existence of concurrent intellectual impairment specified as a specifier. People with ASD who do not also have an intellectual disability are frequently referred to as having high-functioning ASD in the research that is currently available.
For clinicians working with clients with ASD who are not cognitively impaired and can benefit from addressing cognitive biases, deficits in affective knowledge, and social-behavioral competence, cognitive behavioral therapy (CBT) may be considered the therapy of first choice. This is because the logical, pragmatic, and structured approach of CBT suits the mindset of those with higher-functioning ASD (Gaus 2018).
Cognitive Behaviour Therapy (CBT) is directly applicable to autistic adults who experience substantial difficulties in understanding, expressing, and managing their emotions. Due to their impaired Theory of Mind abilities, they can draw false assumptions about the intentions and emotions of others. The therapeutic strategy of CBT is aimed at increasing the awareness of autistic individuals regarding their internal emotional state, thinking and behavioural patterns, as well as their interoception, which may be compromised according to recent research.
CBT entails mastering techniques for effectively managing various life situations, such as social interactions, changes, and high-stress learning environments. These circumstances frequently lead to anxiety and stress for adults on the autism spectrum, resulting in difficulties managing intense emotions like fear, worry, anger, and depression. CBT involves enhancing self-reflection and reflection on one's own and others' thoughts and emotions. Both of these abilities are essential for managing emotions and can be particularly challenging for individuals with autism. Due to their unique

neurology, they often have a limited range of responses to emotional stimuli. CBT provides an opportunity to acquire new skills to calm the autonomic nervous system and handle stressful situations, including social scenarios. Thus, cognitive behavioral therapy presents a chance to acquire self-awareness and novel strategies to manage and, in many instances, surmount mental health disorders (Gaus 2011). To meet the needs of high-functioning people with ASD and their families, CBT's concepts and techniques have been modified. The literature shows that CBT can meaningfully and favorably affect their functioning and distress. CBT can help people live better lives even while therapy does not cure ASD.

Several techniques constitute Cognitive-Behavioral Therapy for High-functioning ASD. These are assessment, psychoeducation, cognitive restructuring, emotion regulation, impulse control, behavioral interventions such as social skills Training, Habit Reversal, and Ritual Prevention are annotated examples of its typical approaches. Different CBT techniques can be used, depending on what the patient needs.

Although the number of longitudinal outcome studies on adults with AS is quite low it was found that CBT was beneficial for individuals with AS. Studies showed a significant improvement in the participants' ability to produce coping responses to a hypothetical scenario and a decrease in anxiety symptoms. Considering these studies, it is seen that CBT can provide a robust model for intervention in adult AS (Gaus, 2011). As a result, Cognitive-Behavioral Therapy for High-functioning ASD is quite successful in modifying unique behaviors and difficulties in children and adults.

Keywords: High-Functioning Autism, Cognitive behavioral therapy, Adult Autistic Spectrum Disorder

References

Gaus, V. L. (2011). Adult asperger syndrome and the utility of Cognitive-Behavioral Therapy. Journal of Contemporary Psychotherapy, 41, 47-56. doi: 10.1007/s10879-010-9159-8 Gaus, V. L. (2018).
Cognitive-Behavioral Therapy for Adults with Autism Spectrum Disorder (2ndEdition). The Guilford Press. Sze, K. M. ve Wood, J. J. (2008). Enhancing CBT for the treatment of Autism Spectrum Disorders and Concurrent Anxiety. Behavioural and Cognitive Psychotherapy, 36, 403-409. doi: 10.1017/S1352465808004384

[Abstract:0599] [Psychopharmacology]

Zuranolone in the Treatment of Postpartum Depression

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Postpartum depression (PPD) is one of the most common complications during the perinatal period and carries significant risks for maternal morbidity and adverse consequences for both the mother and her infant, as well as the family as a whole. It's worth noting that maternal suicide is a leading cause of maternal mortality. The perinatal period is characterized by substantial fluctuations in reproductive hormones, namely estrogen and progesterone. During the third trimester of pregnancy, these hormones experience a substantial increase, ranging from 10 to 50 times their normal levels outside of pregnancy. This hormonal surge also activates the hypothalamic-pituitary-adrenal (HPA) axis, resulting in significantly elevated cortisol levels. However, with the onset of childbirth and the delivery of the placenta, estrogen and progesterone levels drop rapidly. In response to these dramatic hormonal changes, the HPA axis must quickly adapt to maintain hormonal balance. This intricate interplay of hormones and the HPA axis during the perinatal period can play a crucial role in the development of postpartum depression, making it an essential area for research and clinical attention. The pathophysiology of PPD is likely multifactorial, with evidence supporting its involvement in the disruption of perinatal γ-aminobutyric acid (GABA) signaling, a central nervous system's primary inhibitory signaling pathway. One of the potential factors influencing GABAergic signaling and PPD development is the dramatic perinatal changes in the circulating levels of allopregnanolone, a neuroactive steroid (NAS) and a positive allosteric modulator (PAM) of the GABA A receptor. In regions of the brain associated with emotion and self-perception, the neural network supported by GABAergic signaling is positively correlated with plasma allopregnanolone concentrations in individuals with PPD and postpartum healthy women. The HPA axis, perinatal hormonal fluctuations, and GABA signaling have been linked to the pathophysiology of postpartum depression. In a study, mice with GABA dysfunction exhibited symptoms similar to postpartum depression. Plasma concentrations of allopregnanolone, an endogenous progesterone metabolite and a synaptic and extrasynaptic positive allosteric modulator of GABA type A receptors, significantly decrease postpartum, indicating a relationship between GABA regulation and perinatal hormonal fluctuations. Based on this hypothesis, a soluble β-cyclodextrin-based intravenous formulation of allopregnanolone, known as brexanolone injection (SAGE 547), became the first FDA-approved antidepressant specifically for postpartum depression in 2019, marketed as Zulresso. Brexanolone is fast-acting but requires hospitalization for a 60-hour infusion, during which patients must be monitored for excessive sedation and loss of consciousness. These characteristics of the drug also highlighted the need for an oral alternative. In response to these needs, preclinical studies led to the FDA's approval of the first oral medication for postpartum depression on August 4th. Zuranolone, developed by Sage Therapeutics and Biogen, was approved for medical use in August 2023 in the United States. Zuranolone (SAGE 217) is an oral version of brexanolone. Like the

infusion, zuranolone is rapid-acting but much more convenient when taken once daily. Zurzuvae is a 14-day oral medication designed for adults PPD. It is a PAM of the GABA-A receptor, acting as a NAS. The GABA system is the central inhibitory signaling pathway of the brain and contributes to the regulation of brain function. Zuranolone treatment is generally well tolerated, but some side effects may occur. These may include dizziness, drowsiness, and gastrointestinal problems. Also, this medication may interact when taken with alcohol or other sedatives.

Keywords: Depression, GABA, Positive allosteric modulation, Postpartum depression, Zuranolone

[Abstract:0600] [Psychosomatic medicine-Liaison psychiatry]
Reasons for Amputation in Children and Informing the Child of the Amputation Decision

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Amputation is limb loss that occurs congenitally or due to any reason. In developing countries, the amputee population is distributed as 1.55 per 1,000 people (1). Considering only child amputees, it is noteworthy that children under the age of 15 who were amputated due to congenital reasons constitute almost half of the amputee population (1). There is still a lack of reliable data on this subject in Turkey.
Childhood limb losses are classified as congenital or acquired. Studies on the subject have reported that 60% of childhood amputations occur due to congenital and 40% due to acquired reasons (2). Children with acquired amputations differ from adults with regard to etiology. Two of the main causes of acquired amputations in the pediatric population are trauma and neoplasm (3).
Few childhood amputations are caused by vascular disorders which are highly prevalent among older patients (4). Unlike in our country, traumatic amputation injuries related to power tools and other cutting instruments, especially lawn mover, were most common reason of traumatic amputations.
Main causes of traumatic amputations in Turkey differ from developed countries. Motor vehicle accident, industrial injury and electrical burns were found to be the leading causes of acquired amputations in a recent study (5). The majority of traumatic causes resulting in amputation in childhood have a significant common feature; they are preventable.
It is known that many children were amputated after the devastating earthquake that recently occurred in our country. For this reason, the psychiatric approach during and after the amputation has become even more important, especially in children who have acquired amputation after traumatic events. If limb disability is congenital, it may be easier to cope with this limb absence, but acquired amputations are much more traumatic for children. That's why, it is essential for the child's family and doctor to inform them in an age-appropriate manner before both emergency and elective amputations, in terms of the child's psychological and social rehabilitation in the post-amputation period. In this panel, the approach to informing children of the amputation decision will be discussed on the basis of child and adolescent psychiatry.

Keywords: amputation, child, travma

References
1. Amputation. Physical Medicine and Rehabilitation. Methodist Health Care System, Houston,Texas. 2003.
2. John RF. Introduction to the child amputee. in Bowker JH, Michael JW (Eds), Atlas of Limb Prosthetics: Surgical, Prosthetic and Rehabilitation Principles, 2nd ed. St. Louis Mosby, 1992;731-734.
3. Conner KA, McKenzie LB, Xiang H, et al. Pediatric traumatic amputations and hospital resource utilization in the United States, 2003. J Trauma. 2010;68:131-7.
4. Krajbich JI. Lower-limb deficiencies and amputations in children. J Am Acad Orthop Surg. 1998;6:358-67.
5. Demir, Y. et al. "Clinical and Demographic Features of Pediatric Patients with Limb Loss." Journal of Physical Medicine & Rehabilitation Sciences 21.3 (2018).

[Abstract:0601] [Trauma, stress and related disorders]
Neurobiology of Trauma

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The classic fight-or-flight response to perceived threat is a reflexive nervous phenomenon thai has obvious survival advantages in evolutionary terms. However, the systems that organize the constellation of reflexive survival behaviors following exposure to perceived threat can under some circumstances become dysregulated in the process. Chronic dysregulation of these systems can lead to functional impairment in certain individuals who become "psychologically

traumatized" and suffer from post-traumatic stress disorder (PTSD), A body of data accumulated over several decades has demonstrated neurobiological abnormalities in PTSD patients. Some of these findings offer insight into the pathophysiology of PTSD as well as the biological vulnerability of certain populations to develop PTSD, Several pathological features found in PTSD patients overlap with features found in patients with traumatic brain injury paralleling the shared signs and symptoms of these clinical syndromes.

The hypothalamic-pituitary-adrenal (HPA) axis is the central coordinator of the mammalian neuroendocrine stress response systems, and as such, it has been a major focus of scrutiny in patients with PTSD. In short, the HPA axis is made up of endocrine hypothalamic components, including the anterior pituitary, as well as an effector organ, the adrenal glands. Upon exposure to stress, neurons in the hypothalamic paraventricular nucleus (PVN) secrete corticotropin-releasing hormone (CRH) from nerve terminals in the median eminence into the hypothalamo-hypophyscal portal circulation, which stimulates the production and release of adrenocorticotropin (ACTH) from the anterior pituitary. ACTH in turn stimulates the release of glucocorticoids from the adrenal cortex. Glucocorticoids modulate metabolism as well as immune and brain function, thereby orchestrating physiological and organismal behavior to manage stressors.

The hypothalamic-pituitary-thyroid (HPT) axis is involved in regulating metabolic versus anabolic states and other homeostatic functions, which it does by controlling the blood level of thyroid hormones. A possible role for the HPT axis in stress-related syndromes has been suspected for some time because it is known that trauma can trigger thyroid abnormalities.

Core neurochemical features of PTSD include abnormal regulation of catecholamine, serotonin, amino acid, peptide, and opioid neurotransmitters, each of which is found in brain circuits that regulate/integrate stress and fear responses. Of note, catecholamine and serotonin (as well as acetylcholine) dysregulation is also found in patients diagnosed with TBI, presumably as a result of diffuse axonal injury.

There is a general need to explore further the molecular biology of PTSD; identifying interactions between dispositional factors (genetic and epigenetic) and trauma exposure is critical to understand PTSD risk, gauge illness course, and predict treatment response. The effects of trauma on neurotrophic factors (in the hippocampus), neural plasticity (CNS-wide), circuit remodeling (myelination patterns) and gene expression need to be assessed in detail across illness duration. Though difficult, such studies will necessitate accessing, assaying and following populations at risk for exposure to trauma before any exposure occurs.

Keywords: Neurobiology, Trauma, PTSD

[Abstract:0602] [Addiction Psychiatry]
Clinical Characteristics of Addictive Disorders – The Roles of Guidelines

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Symptoms of substance use disorder vary widely from person to person and may include physical, psychological, or behavioral signs.
While misconceptions surrounding substance use may lead you to believe that the condition is caused by a person's behavior or lack of willpower, it's important to keep in mind that that's untrue. Biological factors beyond a person's control play a major role.
Activation of the brain's reward center is the primary reason for most addictions. Whether the SUD is due to alcohol, stimulants, or opioids, the rewarding feeling gained from use — involving an abnormally high dopamine release — is often overpowering.
Continued use of the substance may lead to changes in the brain's structure and function. This can result in intense cravings, withdrawal symptoms, learning and memory problems, and personality changes.
Learning to recognize the signs and symptoms of substance use disorder can be the first step toward seeking help and receiving treatment.
Signs and symptoms of substance use vary widely from person to person and depend on the substance, length and severity of use, and an individual's personality.
Physical signs of substance use disorder; sudden weight loss or gain, pupils that are smaller or larger than usual, bloodshot eyes, changes in appetite and sleeping patterns, slurred speech, impaired coordination or tremors, deterioration of physical appearance or changes in grooming practices, runny nose, unusual odors on breath, body or clothes.
Psychological signs of substance use disorder; feeling paranoid, anxious, or fearful, unexplained change in personality, feeling "spaced out", lack of motivation, feeling excessively tired, periods of excessive energy, mental instability, or

restlessness
sudden changes in mood, increased agitation or anger.
Behavioral signs of substance use disorder; beginning to act in a secretive or suspicious way experiencing problems in relationships due to the condition, using more than originally intended (being unable to control the substance use), neglecting family and friendships, as well as duties at home, school, or work, getting into legal trouble, including driving under the influence, fights, or accidents, suddenly changing hobbies, friends, or activities, using the substance under conditions that may not be safe, such as sex without a condom or other barrier method, driving under the influence, or using syringes that are not sterile experiencing sudden unexplained financial problems, which may include frequently asking for money or stealing, frequently trying to avoid or relieve withdrawal symptoms experiencing increased tolerance for the substance, which may cause the person to use more and more of it, noticing that life revolves around substance use and recovering from use, e.g., always thinking about using or consumed with how to get more no longer engaging in previously enjoyed activities due to substance use continuing to use despite negative health consequences.

Substance use disorder is a treatable mental disorder that affects a person's brain and behavior, leading to their inability to control their use of substances like legal or illegal drugs, alcohol, or medications.

Keywords: Addiction, Disorder, Symptom

[Abstract:0603] [Psychopharmacology]
Guanfacine for the treatment of Post-traumatic stress disorder (PTSD)

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Clinical studies have demonstrated that trauma-focused psychotherapies are considered the first-line of treatments for PTSD in children and adolescents. (1) There were still no FDA approved pharmacologic treatments for youth with PTSD. There are several options for pharmacological treatment of PTSD in children and adolescents, including selective serotonin reuptake inhibitors (SSRIs), alpha- and beta-adrenergic blockers, antipsychotics, and mood-stabilizing agents. Supported by clinical studies that demonstrate dysregulated central nervous system(CNS) noradrenergic functioning and PFC underfunctioning, adrenergic medications are increasingly being used in the treatment of trauma in children. Guanfacine, a selective alpha-2A agonist, can be used to reduce symptoms of PTSD, such as impulsivity and avoidance behaviors, by decreasing sympathetic activation of the CNS; studies have reported that guanfacine can decrease intrusive, avoidant, and hyperarousal symptoms in youth with PTSD (2,3). There are no controlled trials of guanfacine in pediatric PTSD. A small open-label study investigated guanfacine for treatment of PTSD symptoms in children and adolescents, and reported significant improvement; guanfacine was well tolerated with only mild adverse effects (2). Case reports suggest that guanfacine reduces PTSD symptoms including intrusive and hyperarousal symptoms, and nightmares. More research is needed, and although the current evidence is limited, future studies investigating guanfacine to treat symptoms in youth with PTSD appears promising.

Keywords: ptsd, guanfacine, norepinephrine, α2A-adrenoceptor, pharmacotherapy

References:
1- Deblinger E, Mannarino AP et al., Theory, treatment development, and research. In: Child Sexual Abuse: A Primer for Treating Children, Adolescents, and Their Nonoffending Parents. Edited by Deblinger E, Mannarino AP, Cohen JA, Runyon MK, Heflin AH. New York, NY: Oxford University Press, 2015, pp. 19–42.
2- Connor DF, Grasso DJ, et al., An open-label study of guanfacine extended release for traumatic stress related symptoms in children and adolescents. J Child Adolesc Psychopharmacol 23:244–251, 2013.
3- Anderson J, Wang C, et al., Guanfacine as a treatment for posttraumatic stress disorder in an adolescent female. J Child Adolesc Psychopharmacol 30:398–401, 2020.

[Abstract:0604] [Psychotherapy]
The approach from schema therapy perspective to aggression in children and adolescents

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Aggression can be defined as behavior aimed at causing harm or injury to any living being who does not desire to be subjected to it. Factor analysis of various scales related to aggression has resulted in the distinction of different dimensions of aggression. The classification with the highest level of evidence is reactive-proactive aggression. Reactive aggression is associated with impulsive behaviors that arise in response to perceived threats or provocations, while proactive aggression is highly correlated with callous-unemotional traits and involves planned behaviors aimed at achieving personal gain or c control over others. While being a natural and adaptive part of the repertoire of social behavior, it can become disruptive when it becomes chronic, excessive, or out of context. Aggression often emerges before the age of 2 and can persist for years. Although there is a 50-70% improvement, adjustment problems continue. It is one of the most common reasons for child and adolescent psychiatric referrals.

Schema therapy(ST) is an integrated form of psychotherapy that combines cognitive-behavioral therapy, psychodynamic therapy, gestalt therapy, interpersonal therapy. The three core concepts in ST are early maladaptive schemas, schema coping styles, and schema modes. Early maladaptive schemas are made up of trait like dysfunctional cognitions concerning oneself, one's relationships with others, and the world. These schemas are considered to result from the interaction of temperamental traits such as neuroticism and existing damaging experiences with parents, siblings, teachers and/or friends. Schema coping styles include a person's maladaptive schemas and damaging childhood experiences It reflects how one adapts to the schema and represents three different styles: overcompensation (i.e., presenting the opposite to the maladaptive schema), avoidance (i.e., attempting to avoid situations that would trigger the schema), or surrender (i.e., submitting to the schema, acting as if it were real). Modes refer to immediate emotional and cognitive states and active coping responses. When a schema mode becomes active, it takes control over other schema modes and defines the patient's current emotional, cognitive, and behavioral condition. The shift in the dominant schema mode can happen swiftly, and this may explain the emotional instability and outbursts of anger often seen in patients with clinical aggression. There are four groups of schema modes. Dysfunctional child modes are associated with violations of basic childhood needs; dysfunctional coping modes refer to immediate strategies for coping with schema activation; Dysfunctional parenting modes represent internalized negative behaviors that parents (and possibly peers) showed the individual as a child. As to healthy moods, they are about positive and healthy thoughts as well as behaviors.

Shema therapy in children and adolescents differs from adults in some points. Firstly rather than cognitions child schema therapy focus on emotions. The clinical practice necessitates child and age-appropriate psychoeducation (schemas, modes, needs, etc.) and more playful techniques (puppets, stories, drawings etc). Schema coaching for parents is also an important component of schema approach in children and adolescents. After identifying the active Schema Mode (Step 1), therapists may employ specific techniques to address and modify that active mode. These techniques can be categorized into three primary groups. Cluster 1 involves relational techniques, where therapists utilize the therapeutic relationship to promote emotional regulation. These techniques are rooted in psychodynamic principles, drawing from object relations theory and self-psychology. The therapeutic relationship aims to provide a contrast to any abusive or punitive relationships the patient experienced in childhood. The therapy setting becomes a safe space for patients to express their needs, desires, and feelings, receiving emotional support and correction. This therapeutic relationship allows patients to revisit and express emotions or desires that were previously suppressed by negative early experiences. The therapist's role as a limited reparenting figure is evident in most sessions as they explore the patient's current interpersonal challenges. The ultimate goal is to help patients work through problematic child modes and parental issues through schema coaching.
Cluster 2: Experiential Approaches. Experiential techniques in psychotherapy are centered on emotions and are specifically designed to address emotions triggered by the activation of particular Early Maladaptive Schemas (EMSs). They draw inspiration from emotion-focused therapy principles and are partially influenced by the Cognitive-Behavioral Therapy (CBT) tradition. These techniques provide patients with the opportunity to engage with emotions like anger and sadness in a healthier manner, or to construct new systems of meaning and behaviors related to these emotions. In Schema Therapy (ST), experiential techniques can be categorized into two main groups: imagery rescripting and chair dialogues. The choice of technique depends on the specific schema mode the therapist encounters during sessions. Cluster 3: Cognitive Strategies. In Schema Therapy (ST), therapists also integrate some Cognitive-Behavioral Therapy (CBT) techniques, but these are typically introduced once the initial stages of therapy have been completed. This cautious approach is taken because applying CBT techniques prematurely, before addressing maladaptive coping strategies, may inadvertently strengthen these strategies rather than diminish them. These techniques are adapted from conventional CBT methods and serve to help the patient gain cognitive insight into their schema modes, coping strategies, the role of emotions, and to restructure any problematic thought patterns or disrupt dysfunctional behavioral patterns. For instance, a practical application of this involves the use of flashcards where the patient documents the activation of schema modes, associated beliefs, and the resulting effects.

Keywords: aggression, child, parent, schema, therapy

References
Tremblay, R. E. (2010). Developmental origins of disruptive behaviour problems: the 'original sin'hypothesis, epigenetics and their consequences for prevention. Journal of child psychology and psychiatry, 51(4), 341-367.
Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). Schema therapy: A practitioner's guide. New York: Guilford Press.
Loose, C., & Pietrowsky, R. (2016). Schema therapy with children and adolescents–a conceptual and evidence-based overview. Zeitschrift fur Kinder-und Jugendpsychiatrie und Psychotherapie, 44(6), 432-442.
Dadomo, Harold, et al. "Schema therapy for emotional dysregulation: Theoretical implication and clinical applications." Frontiers in psychology 7 (2016): 1987.
van Wijk-Herbrink, Marjolein F. "Schema Therapy in adolescents with externalizing behavior problems: Bridging theory and practice." (2018).

[Abstract:0605] [Others]
Cognitive Disengagement Syndrome and Comorbid Psychiatric Disorders in Children and Adolescents

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Cognitive disengagement syndrome (CDS), formerly known as 'sluggish cognitive tempo' (SCT),is described as a set of symptoms including a sleepy appearance, staring blankly, excessive daydreaming, being confused, getting lost in one's thoughts, drowsiness, and slow thinking/behavior. Epidemiological studies report that the prevalence of CDS in the population is 11% (1).
Although first arising from studies assessing aspects of attention-deficit/hyperactive disorder (ADHD), it is now evident that SCT symptoms are separate from, but strongly related to, ADHD-inattentive (ADHD-IN) symptoms.Moreover, a growing body of research links CDS to a range of other psychopathology and functional impairments beyond ADHD-IN, including increased anxiety and depressive symptoms, withdrawal from peers, and sleep problems.There is currently strong empirical evidence supporting the distinction between CDS and ADHD-IN symptoms.Few researches have considered multivariate predictors of CDS.Studies examining potential psychopathology as predictors of CDS are important; found that inattention, anxiety, depression, somatic complaints, excessive or decreased sleep, cognitive problems, and autism symptoms were uniquely associated with CDS (2).
ADHD, anxiety, autism, depression, language delay, delayed motor skills/coordination, and reading impairment are the most common comorbid disorders of CDS.
CDS and ADHD-IN are empirically different; there is a stronger relationship than CDS and ADHD-hyperactivity/impulsivity (ADHD-HI). CDS is unassociated or negatively associated with ADHD-HI. However, frequently occurs with all three ADHD presentations. Epidemiological studies show increased SCT symptoms in 25-40% of adolescent with ADHD and 46% of adults with ADHD.
While cognitive arousal/alertness disorder is prominent in CDS, ADHD can exhibit both disruptive behaviors and internalizing symptoms. Internalizing symptoms such as anxiety and depression are more common in CDS. Oppositional defiant disorder and conduct disorder are unrelated to CDS. Simultaneously, CDS is also emphasized that is negatively associated with antisocial personality disorder and substance use disorder (3). A study found that the positive correlation between increased obsessive-compulsive disorder symptoms and elevated CDS symptoms(4).
CDS is connected with parental-reported sleep problems and daytime drowsiness in children. CDS is associated with global sleep disorders, shorter sleep duration, and greater daytime sleepiness in college students and adults(3). Studies investigating the relationship between autism and CDS have found that as the severity of CDS symptoms increases in individuals with autism, the frequency of social inadequacy and internalizing disorders increases. However, it is stated that the severity of CDS symptoms does not affect externalizing symptoms, academic functions and processing speed in individuals with autism(5).
According to parent reports from two population-based studies, those with elevated CDS were more likely than those without raised CDS to obtain diagnoses of reading disability, specific writing disability or significant language delay(3). The findings of meta-analysis reveal a minor but significant relationship between CDS and lower general intellectual capacity. In children with autism and/or ADHD did not differ substantially between children with IQ scores ranging from profound-moderate intellectual disability to average intelligence, however children with above average intelligence had considerably lower CDS scores(3).
Much more research is needed to better understand CDS, which has recently attracted attention, its linkages with other psychopathologies and its connections to specific domains of functional impairment.

Keywords: cognitive disengagement syndrome, sluggish cognitive tempo, attention deficit hyperactivity disorder, comorbidity, children/adolescent

[Abstract:0607] [Psychotherapy]
Multidisciplinary Treatment for Functional Movement Disorders

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Functional neurological disorder (FND) is a common and complex neuropsychiatric condition in medical practice. Patients experience FND symptoms that cannot be explained by any other neurological or medical disorder. It is reported in the literature that the prognosis of FND is poor.
For two decades, there is a substantial increase in research interest regarding FND. New insights into the underlying mechanisms for FND have been reached in the light of accumulated knowledge in the literature.
In line with the recent recommendations, multidisciplinary management of FND symptoms has become a treatment of choice. This treatment modality involves neurologist, psychiatrist, physiotherapist, and also psychotherapist. For psychotherapy, although literature suggest that both psychodynamic and cognitive behavioral approaches in the management of FND are appropriate treatments as a part of this interdisciplinary treatment, the evidence for cognitive behavior therapy is of higher quality. Thus, cognitive behavioral therapy (CBT) is becoming increasingly to treat FND in order to address the dysfunctional core beliefs and behaviors that underlie the generation of FND.
Principally, CBT for FND tries to aim to decrease FND symptoms by restructuring the maladaptive beliefs and reversing avoidance and other unhelpful illness behaviors.
CBT begins with the observation and monitoring of functional neurological symptoms. Therapist and patient collaboratively try to both identify FND symptoms and find the possible triggers of these symptoms at behavioral, physiological, and cognitive level.
CBT thus recontextualises the patient's FND symptoms. In the treatment process of CBT, the therapist primarily tries to create a comprehensive formulation of the patient's condition which helps them to understand the client's presenting problems within the framework of the cognitive behavioral model. In that way, patients and therapists will begin to understand presenting, predisposing, precipitating, perpetuating, and protective factors. In this context, his/her external life-events as well as internal conflicts could be addressed in the therapeutic setting.
Cognitive model, upon which CBT is based, basically describes how patients' thoughts and perceptions influence the way that they feel and behave. In this context, patients are asked about the impact of their own interpretations and behaviors on their symptoms. Specifically, amongst sessions, the cognitive distortions and behavioral consequences of the symptoms of the patients are analyzed. After the identification of the patient's maladaptive beliefs, more adaptive ones will be promoted by the therapist.
Thus, the more the patients recognize their symptoms, the easier it is for them to cope with their subsequent symptoms and the more control they feel over them. In addition, illness beliefs could also be discussed along with psychotherapeutic process, which is thought to contribute to the treatment.
During the presentation, the administration of psychotherapy in the context of multidisciplinary management of FND will be shared via case study having functional movement disorder. About movement disorders, this diagnostic group is often associated with mood disorder, Obsessive Compulsive Disorder, and fatigue, which are pathological conditions in which CBT has been demonstrated to be effective.

Keywords: functional neurological disorder, multidisciplinary treatment, cognitive behavioral therapy

References:
Espay AJ, Aybek S, Carson A, Edwards MJ, Goldstein LH, Hallett M, Lafaver K, Curt Lafrance W, Lang AE, Nicholson T, Nielsen G, Reuber M, Voon V, Stone J and Morgante F (2018) Current concepts in diagnosis and treatment of Functional Neurological Disorders. JAMA Neurology 74, 1132–1141.
Goldstein LH, Chalder T, Chigwedere C, Khondoker MR, Moriarty J, Toone BK, Mellers JD. (2010) Cognitive-behavioral therapy for psychogenic nonepileptic seizures: a pilot RCT. Neurology 74:1986– 1994.
Gutkin M, McLean L, Brown R, et al. (2021). Systematic review of psychotherapy for adults with functional neurological disorder. J Neurol Neurosurg Psychiatry, 92:36–44.

[Abstract:0608] [Perinatal psychiatry]
Motherhood and Schizophrenia: Supportive Approaches during Parenthood and the Postpartum Period

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Pregnancy, motherhood, and childbirth are transformative processes for the woman and everyone closely associated with her. The balance between discontinuity and continuity during this transformation is personal. While various challenges can be encountered in adjusting to motherhood and child care, even greater difficulties can be observed in fulfilling motherhood roles and responsibilities in schizophrenia. The mother might not be aware of her illness or symptoms like depression, low energy, social and cognitive inadequacies, and a lack of social support can negatively

impact the protective, nurturing role of the parent, affecting the emotional reciprocity in the caregiver-baby relationship (1, 2). The interaction of negative environmental conditions with genetic factors during pregnancy and postpartum can lead to mental health issues in children (3). Insufficient nutrition during the postpartum period, accompanied by smoking and substance use, can cause developmental delays or disorders in the baby. Under the influence of delusions, they can be exposed to neglect and abuse. Babies' psychosocial development is greatly influenced by their relationships with their caregivers. Separation due to the mother's hospitalization in the first year can prevent the child from achieving object permanence. Early emotional experiences between the baby and mother pave the way for developing emotion regulation skills in later years (4). Emotional availability, sensitivity of the mother to the baby's needs, and the harmony between mother and baby play a critical role in the baby's emotion regulation and cognitive skill development (5). However, this sensitivity can be impaired in mothers with schizophrenia. Previous studies have indicated that patients with schizophrenia may not develop a strong bond with their babies, may feel alienated from them, can be intrusive or withdrawn, all of which reduce the quality of mother-infant interaction (6, 7). Therefore, maternal schizophrenia can disrupt the mother-baby relationship and their harmony (8). Care that supports the baby's optimal development fosters secure attachment. The mother's positive (love, affection, happiness) and negative (anger, sorrow, unrest) emotion-focused facial expressions play a role in differentiating attachment styles. Mothers with schizophrenia are more likely to use facial expressions reflecting negative emotions or indifference towards their babies. Accepting and loving facial expressions contribute to the child developing a secure attachment style, while indifferent or negative facial expressions can lead to the baby developing an insecure and anxious attachment style and problems in emotion regulation skills (9,10). Various psychotherapy methods can be used in individuals with schizophrenia to improve the caregiver-infant relationship. Supportive psychotherapy is also an analytical therapy method that can be applied to individuals with severe mental illnesses. A fully supportive approach should be adopted for individuals with schizophrenia. The goal in therapy is to ensure efficient use of impaired ego functions, improve adaptive skills, reduce anxiety, and reduce social withdrawal. Establishing a supportive relationship, avoiding confrontation and interpretation, and using supportive techniques (advice, encouragement, assurance, motivation) are essential when working with this group (11). It is vital to enhance functionality by supporting the individual's ego functions. In addition to interventions aimed at reducing symptoms, parenting training, counseling for mothers and families, parenting coaching for mothers and parent support groups can also be cited as psychosocial intervention practices.

Keywords: schizophrenia, postpartum, parenthood, relationship, supportive approaches

References

1. Strand J, Boström P, Grip K (2020) Parents' descriptions of how their psychosis affects parenting. J Child Fam Stud, 29:620-631.
2. Mehta UM, Bhagyavathi HD, Kumar CN, Thirthalli J, Gangadhar BN (2013) Cognitive deconstruction of parenting in schizophrenia: The role of theory of mind. Aust NZJ Psychiatry, 48:249-258.
3. Trotman HD, Holtzman CW, Walker EF, Addington JM, Bearden CE, Cadenhead KS et al. (2014) Stress exposure and sensitivity in the clinical high-risk syndrome: Initial findings from the North American Prodrome Longitudinal Study (NAPLS). Schizophr Res, 160:104-109
4. Denham SA, Bassett HH, Wyatt T (2015) The socialization of emotional competence. In: Handbook of socialization: Theory and research (Eds: JE Grusec, PD Hastings): 614-637. London, Guilford.
5. Cohn JF, Tronick E (1989) Specificity of ınfants' response to mothers' affective behavior. J Am Acad Child Adolesc Psychiatry, 28:242-248.
6. Riordan D, Appleby L, Faragher B (1999) Mother–infant interaction in post-partum women with schizophrenia and affective disorders. Psychol Med, 29:991-995
7. Hıpwell AE, Goossens FA, Melhuısh EC, Kumar R (2000) Severe maternal psychopathology and infant–mother attachment. Dev Psychopathol, 12:157-175.
8. Malhotra M, Kumar D, Verma R (2015) Effect of psychosocial environment in children having mother with schizophrenia. Psychiatry Res, 226:418- 424.
9. Wan MW, Moulton S, Abel KM (2008a) The service needs of mothers with schizophrenia: a qualitative study of perinatal psychiatric and antenatal workers. Gen Hosp Psychiatry, 30:177-184.
10. Wan MW, Moulton S, Abel KM (2008b) A review of mother-child relational interventions and their usefulness for mothers with schizophrenia. Arch Womens Ment Health, 11:171-179.
11. Aydın N, Akdeniz F, Çetinay Aydın P, Gebelik ve Doğum Sonrası Dönemde Ruhsal Bozuklukların Sağaltım Kılavuzu, 1. Baskı, Ankara, Türkiye Psikiyatri Derneği 2021; 299.

[Abstract:0609] [Others]
Normal and Pathological Reward Processing: From Synapse to Behavior

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"Reward" can evoke positive emotions and lead to approach behavior, while punishment acts as a negative stimulus leading to avoidance behavior that prevents taking action. The ability of the organism to process rewards and punishments determines its goal-directed behaviors. The reward processing system includes the pleasure/liking created by the stimulus, the ability to learn the reward, the ability to predict future rewards, and engaging in goal-directed activities. The relationship between the results of actions developed in response to stimuli can be learned. When a stimulus induces a liking/hedonic response in an individual, the individual must learn the stimulus-outcome-action relationship and wanting to consume the reward (1).Looking at the hedonic/liking part of the reward system, the current perspective divides the pleasure created by the hedonic stimulus into "Consummatory pleasure", which is the instant hedonic/pleasure, and "anticipatory pleasure", which is the pleasure derived when thinking of a future stimulus. Dopamine, known as the main neurotransmitter of the reward system, is believed to play an important role in anticipatory pleasure. Motivation, a key component of the reward system, is defined as the impulse to take action for a purpose and is a multi-dimensional concept. Its basic component is 'wanting' and is related to reward prediction and incentive salience. Reward expectation refers to the anticipation and expectation of future rewards; as a result, the feeling/response of "wanting" arises in the individual. The magnitude of the dopaminergic response triggered by reward expectation varies (2). From a neurobiological perspective, dopaminergic neurons in the ventral tegmental area play a vital role in processing stimuli as rewards with projections extending to the prefrontal cortex, nucleus accumbens, hippocampus, and amygdala, key forebrain regions. Dopamine release in the mesolimbic pathway stimulates dopamine 1 and 2 receptors in the nucleus accumbens' medium spiny neurons. Dopamine 1 receptors increase sensitivity to glutamatergic stimulation, activating the thalamocortical pathway directly, while D2 receptors reduce glutamate sensitivity, indirectly inhibiting the thalamocortical pathway (3). NAc medium spiny neurons receive glutamatergic inputs from both the medial and lateral prefrontal cortex, ventral hippocampus, basolateral amygdala, and medial thalamus (4). The connection between the prefrontal cortex and the nucleus accumbens regulates behaviors related to the search, planning, and obtaining of reward-related substances/activities (5).Stimuli from the ventral hippocampus play a role in calculating the value of rewards based on past experiences, while glutamatergic inputs from the basolateral amygdala support fear-related conditioning and behavior, increasing reward-seeking (6). The cortico-basal ganglia reward network integrates the behaviors directed by cortical limbic structures active in emotion, memory, and executive functions with thalamocortical outputs (7). While mood disorders like schizophrenia exhibit motivational deficiencies, pathological gambling, attention deficit hyperactivity disorder, and addictions display abnormal motivational activation (8).

References

1. Berridge K. C., Kringelbach M. L. (2015). Pleasure systems in the brain. Neuron 86, 646–664. 10.1016/j.neuron.2015.02.018
2. Schultz W. Multiple dopamine functions at different time courses. Annu Rev Neurosci. 2007;30:259-88.
3. Nestler E. J., Hyman S. E., Holtzman D. M., Malenka R. C. (2015). Molecular Neuropharmacology: A Foundation for Clinical Neuroscience, 3rd Edn. Columbus, OH: McGraw-Hill Education, 528.
4. Surmeier D. J., Ding J., Day M., Wang Z., Shen W. (2007). D1 and D2 dopamine-receptor modulation of striatal glutamatergic signaling in striatal medium spiny neurons. Trends Neurosci. 30, 228–235. 10.1016/j.tins.2007.03.008
5. Floresco S. B. (2015). The nucleus accumbens: an interface between cognition, emotion, and action. Annu. Rev. Psychol. 66, 25–52. 10.1146/annurev-psych-010213-115159
6. Gruber A. J., Hussain R. J., O'Donnell P. (2009). The nucleus accumbens: a switchboard for goal-directed behaviors. PLoS ONE 4:e5062. 10.1371/journal.pone.0005062
7. Kanoski S. E., Grill H. J. (2017). Hippocampus contributions to food intake control: mnemonic, neuroanatomical, and endocrine mechanisms. Biol. Psychiatry 81, 748–756. 10.1016/j.biopsych.2015.09.011
8. Simpson EH, Balsam PD. The Behavioral Neuroscience of Motivation: An Overview of Concepts, Measures, and Translational Applications. Curr Top Behav Neurosci. 2016 Jun 1;27:1–12.

Keywords: reward processing, dopamine, glutamate, cortico-basal ganglia reward network

[Abstract:0611] [Psychotherapy]

The Approach from Expressive Art Therapies Perspective to Aggression in Children and Adolescent

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Adolescents often experience a whirlwind of emotions as they navigate the transition from childhood to adulthood. These emotional upheavals can lead to frustration, confusion, and, in some cases, aggressive behavior. Adolescents are in the process of forming their identities, and this self-discovery journey can be filled with uncertainty and self-doubt. The

struggle to establish a sense of self can contribute to emotional volatility and, in turn, aggression. The main reason for using art in therapy with children is that much like play, children naturally use art as a method for understanding their world (1).

Art therapy is a form of therapeutic intervention that utilizes the creative process of making art to help people explore and express their emotions, thoughts, and feelings. It is a mental health profession that combines the fields of art and psychology to promote healing, self-discovery, and personal growth (2).
Art therapy offers a unique way to communicate emotions, especially for those who struggle to express anger verbally. The process of creating art helps individuals slow down, facilitating deeper self-reflection on their feelings and issues. It's a less intimidating approach to addressing anger-related concerns. Research suggests that art therapy can improve communication between different parts of the brain, enhancing cognitive skills for learning. The structured boundaries of art therapy sessions create a safe environment for clients to explore their anger without feeling overwhelmed. Art allows for the expression of complex and often contradictory emotions on a single page, aiding clients in self-discovery. Importantly, there's no "right" or "wrong" way to create art in this therapy, alleviating the pressure found in goal-oriented approaches. In group settings, sharing artwork helps individuals realize they share common experiences, reducing feelings of isolation (3).
These aspects make art therapy a valuable tool for managing anger effectively.

Keywords: Art therapy, Aggression, Adolescent, Children.

References:
1- Marian Liebmann (2008) Art Therapy and Anger, London and Philadephia
2-Judith Aron Rubin (2005), Child Art Theary,25th Anniversary Edition, Canada
3-Eric J.Green, Athena A.Drewes (2014),İntegrating Expressive Art and Play Therapy With Children and Adolescents, Canada

[Abstract:0612] [Trauma, stress and related disorders]
Grief: Etiology, symptoms and treatment

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Bereavement, the experience of losing a loved one to death, is a common human experience and grief represents the normal reaction to this loss. People may also experience grief as a response to different life events such as loss of job or a relationship, and the loss of some intellectual-abstract values such as homeland/independence/an ideal.

Grief represent itself in a variety of psychological and physiological symptoms that evolve over time. The manifestations of grief are variable and unique to each loss and each individual; however, there are commonalities that clinicians can recognize. Symptoms of grief includes dysphoria, anxiety, depression, and anger, and these symptoms often accompanied by physiological alterations such as an increased heart rate or blood pressure, increased cortisol levels, sleep disturbance, and changes in the immune system.

Several theories of grief have arisen that provide different viewpoints to comprehend bereavement. Psychoanalytic theories have influenced current perspectives of grief. Particularly, the distinction between normal and pathological grief. In Freud's view, both mourning and melancholia were reactions to 'object loss' but mourning represented a healthy and adaptive process, while melancholia manifested as a chronic and destructive reaction. Based on attachment theory by Bowlby, it describes the process of grieving as consisting of four phases, “phase of numbing,” “phase of yearning and searching,” “phase of disorganization and despair,” and “phase of reorganization”. As another theory, Kubler-Ross and Kessler divided grief into five stages as denial, anger, bargaining, depression, and acceptance. A more recent model for understanding grief is the dual-process model developed by Stroebe and Schut in 2010, described as a model of coping with bereavement. According to this model, grieving involves two distinct categories of stressors: loss-oriented stressors, which center around the bereaved individual's focus on the experience of the loss, and restoration-oriented stressors, which relate to the necessary adjustments required to reorient their world without the presence of the deceased person.

Although the majority of those who bereave are expected to adapt to the loss over time, a significant minority of bereaved individuals continue to endure elevated levels of distress and exhibiting abnormally persistent grief symptoms over an extended period of time after the loss. Prolonged grief disorder has recently been included in the text revision of the DSM 5 and interventions for prolonged grief were being discussed even before this update. Randomized controlled trials have demonstrated the effectiveness of psychotherapy in treating prolonged grief. A short-term approach called

complicated grief treatment is the treatment that has been most extensively studied to date. Another approach for prolonged grief is interpersonal psychotherapy, which targets interpersonal problem areas, including grief, with the goal of improving mood. Although data are lacking from randomized trials to inform the use of pharmacotherapy for prolonged grief, antidepressant medication is used commonly in practice. Five open-label trials suggested improvement in patients who received antidepressants, but not benzodiazepines.

The purpose of this presentation is to give a clear understanding about the course and nature of the grief process and about interventions in the abnormal grief process.

Keywords: grief, bereavement, prolonged grief disorder, complicated grief, trauma.

References

1. Shear MK. Complicated grief. New England Journal of Medicine. 2015 Jan 8;372(2):153-60.
2. Prigerson HG, Kakarala S, Gang J, Maciejewski PK. History and status of prolonged grief disorder as a psychiatric diagnosis. Annual review of clinical psychology. 2021 May 7;17:109-26.
3. Johannsen M, Damholdt MF, Zachariae R, Lundorff M, Farver-Vestergaard I, O'Connor M. Psychological interventions for grief in adults: A systematic review and meta-analysis of randomized controlled trials. Journal of Affective Disorders. 2019 Jun 15;253:69-86.

[Abstract:0613] [Others]

Putting the sensories into the words: developmental language disorder and sensory processing

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Developmental Language Disorder (DLD) stands as one of the most prevalent challenges during childhood. Numerous cognitive etiological factors may underpin constrained language development, encompassing deficits in short-term and long-term memory, working memory, and central executive functions (1,2). The central executive function plays a distinctive role in processing sensory input via several pathways emerging from the phonological loop and visuo-spatial sketchpad (3).

Sensory processing is a central function that plays a primary role through top-down or bottom-up pathways in generating an appropriate reaction to various sensory stimuli (4). Although sensory processing difficulties are a somewhat controversial phenomena, it is recognized as a distinct clinical entity in DC:0–5™, the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (5). Moreover, sensory processing is also an important part of the socio-emotional development of children within a multidimensional and stepwise developmental approach (6).

While there are numerous studies examining the relationship between other neurodevelopmental disorders and sensory processing (4), there is a scarcity of research investigating the association between DLD and sensory processing (7,8). Sensory hypo/hyper-sensitivities, atypical responses to sensory stimuli are common features observed in this population. These sensory processing difficulties can further exacerbate language challenges, leading to increased emotional distress and reduced communication ability. Moreover, atypical sensory experiences can disrupt the establishment of essential early language skills.

In this review presentation, we will revisit the subject of sensory processing and undertake an evaluation of its association with DLD. This examination will encompass shared etiological factors, clinical phenomenological correlations, and potential therapeutic interventions. Our assessment will be established upon a review of the current literature, encompassing studies published up to September 2023, sourced from electronic databases including PubMed, PsycINFO, and Google Scholar. In conclusion, it will be emphasized that bidirectional relationship between DLD and sensory processing difficulties exist. Understanding the complex interplay between these domains and evaluating non-linguistic domains of children with DLD is essential for developing more effective diagnostic and intervention strategies.

Keywords: Sensory, Language Development, Sensory Processing, Sensory Processing Disorder, Developmental Language Disorder

References

1. Vugs B, Hendriks M, Cuperus J, Knoors H, Verhoeven L. Developmental associations between working memory and language in children with specific language impairment: A longitudinal study. J Speech, Lang Hear Res. 2017;60(11):3284-3294. doi:10.1044/2017_JSLHR-L-17-0042
2. Vissers C, Koolen S, Hermans D, Scheper A, Knoors H. Executive functioning in preschoolers with specific language impairment. Front Psychol. 2015;6(OCT):1574. doi:10.3389/fpsyg.2015.01574
3.Baddeley A. Working memory and language: an overview. J Commun Disord. 2003;36(3):189-208. doi:https://doi.org/10.1016/S0021-9924(03)00019-4
4.Galiana-Simal A, Vela-Romero M, Romero-Vela VM, et al. Sensory processing disorder: Key points of a frequent alteration in neurodevelopmental disorders. Cogent Med. 2020;7(1):1736829.
5.Zeanah CH, Carter AS, Cohen J, et al. Diagnostic classification of mental health and developmental disorders of infancy and early childhood dc: 0–5: selective reviews from a new nosology for early childhood psychopathology. Infant Ment Health J. 2016;37(5):471-475.
6.Miller LJ, Nielsen DM, Schoen SA, Brett-Green BA. Perspectives on sensory processing disorder: a call for translational research. Front Integr Neurosci. 2009;3:597.
7.Kate Simpson Jessica Paynter SZ, Westerveld M. Sensory Profiles in School-Age Children with Developmental Language Disorder. Int J Disabil Dev Educ. 2022;69(3):781-790. doi:10.1080/1034912X.2020.1740186
8. Linde J, Franzsen D, Barnard-Ashton P. The sensory profile: Comparative analysis of children with Specific Language Impairment, ADHD and autism. South African J Occup Ther. 2013;43:34.

[Abstract:0615] [Psychosomatic medicine-Liaison psychiatry]
Psychiatric Disorders in Diabetes Mellitus

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Diabetes mellitus is one of the most important metabolic diseases affecting many people worldwide. Approximately 8.5% of the adult population in the world is affected by this disease. Additionally, diabetes-related mortality is increasing day by day. The prevalence of psychiatric disorders in patients with diabetes mellitus and diabetes mellitus in patients with psychiatric disorders is higher than from the normal population. Many psychiatric disorders, such as unipolar depression, bipolar disorder, anxiety disorders, cognitive disorders, schizophrenia, eating disorders and borderline personality disorder are comorbid. Patients with diabetes have a 50-100% higher risk of depression than the general population. A meta-analysis reported that the prevalence of depression in patients with type 2 diabetes mellitus is 17.6% and 9.8% in non-diabetics. The risk of suicide is also higher in diabetic patients than in the healthy population. It has been reported that people with depression have a 60% increased risk of developing diabetes. The prevalence of diabetes is 2-3 times higher in schizophrenia, schizoaffective disorder and bipolar disorder. Hyperglycemia is higher in newly diagnosed and untreated schizophrenia and bipolar disorder patients than in the healthy population. Diabetes mellitus was detected at a higher rate in antipsychotic users with schizophrenia than in antipsychotic users without schizophrenia. The relationship between psychiatric disorders, especially unipolar depression, bipolar disorder schizophrenia, and diabetes mellitus is complex, and there is a bidirectional causal link between them. Studies suggest that the high association between diabetes mellitus and various psychiatric disorders may be due to biological predisposition and that common mechanisms may play a role in disease pathogenesis. In addition, antidepressants and antipsychotics may cause blood sugar abnormalities. Hyperglycemia has been reported to occur 1 year after starting antidepressant treatment, and in those with a predisposition, diabetes occurs within the first 6 months of clozapine and olanzapine treatment. Antidepressants stimulate glycogenolysis and gluconeogenesis by inhibiting noradrenaline reuptake and increasing synaptic noradrenaline excretion, leading to elevated blood glucose levels. By centrally blocking H1 and 5-HT2C receptors, they increase appetite and cause weight gain, resulting in insulin resistance and hyperglycemia. Peripheral blockade of M3 receptors in beta cells suppresses insulin secretion and increases leptin levels. Antidepressants with noradrenergic activity have a high risk of impairing glucose metabolism, while SSRIs have a relatively lower risk. Among the antipsychotics, olanzapine and clozapine have the highest risk. Risperdone and quetiapine have medium risk, while ziprasidone and sertindole have low risk. The coexistence of mental disorders and diabetes negatively affects metabolic control, micro and macroangiopathic late complications and mortality. Patients with diabetes or psychiatric diagnoses should be regularly monitored for comorbid illness to maintain treatment success.

Keywords: Diabetes, schizophrenia, bipolar, depression, antidepressant, antipsychotic

References

1.Expert, D. C. C. P. G., Robinson, D. J., Hanson, K., Jain, A. B., Kichler, J. C., Mehta, G.,.. & Senior, P. (2023). Diabetes and Mental Health. Canadian journal of diabetes, 47(4), 308-344.

2.Medved, V., Jovanović, N., & Popović Knapić, V. (2009). The comorbidity of diabetes mellitus and psychiatric disorders. Psychiatria Danubina, 21(4), 585-588.
3.Abrahamian, H., Kautzky-Willer, A., Rießland-Seifert, A., Lebherz-Eichinger, D., Fasching, P., Ebenbichler, C., Kautzky, A., & Toplak, H. (2023). Psychische und neurokognitive Erkrankungen und Diabetes mellitus (Update 2023) [Mental disorders and diabetes mellitus (Update 2023)]. Wiener klinische Wochenschrift, 135(Suppl 1), 225–236.

[Abstract:0616] [Trauma, stress and related disorders]
Theory of Mind in Post Traumatic Stress Disorder

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The capacity to understand the mental states, beliefs, intentions, desires, and knowledge of others is referred to as theory of mind (ToM). Early infancy is when ToM development starts, and it lasts until adolescence (1). Empathy and social interaction depend on ToM ability. So it is possible to say that ToM abilities lead to social cognition. When someone experiences or witnesses a potentially fatal event like a war, natural disaster, automobile accident, or sexual assault, they may develop post-traumatic stress disorder (PTSD), a mental health condition. A recent meta-analysis covering 19 studies including 565 people with PTSD and 641 people without PTSD found that people with PTSD scored lower on general social cognitive performance, especially mentalization, and had a medium effect size overall (2). Despite many evidence that trauma survivors experience disruptions in interpersonal functioning, few studies have systematically examined specific social cognition challenges, such as ToM deficiencies, that may mediate these undesirable results. (3,4) PTSD that is currently present or has a history of traumatic experiences throughout childhood, according to the literature, may result in impaired ToM skills, which may lead to problems with social interaction. Three themes were identified to explain the relationship between PTSD and social cognition in a recent cohort study that examined the effect of social cognition on the treatment response of PTSD patients: 1) Social cognition varies across contexts and over time for individuals. 2) A decreased capacity for social cognition may increase the risk of PTSD. 3) Social cognition may be impacted by trauma and PTSD (5). In light of these hypotheses, new studies are needed to investigate the relationship between PTSD and specific social cognitive difficulties, such as ToM deficits.

Keywords: PTSD, Theory of mind, Trauma

References:

1. Slaughter V (2015) Theory of mind in infants and young children: a review. Aust Psychol 50(3):169–172. https://doi.org/10. 1111/ap.12080
2. Janssen PG, van Est LA, Hilbink M et al (2022) Social cognitive performance in posttraumatic stress disorder: a meta-analysis. J Afect Disord 297:35–44. https://doi.org/10.1016/j.jad.2021.09.082
3. Mazza M, Giusti L, Albanese A et al (2012) Social cognition disorders in military police ofcers afected by posttraumatic stress disorder after the attack of An-Nasiriyah in Iraq 2006. Psychiatry Res 198(2):248–252
4. Kılıç, A., Gürcan, M. B., Kökrek, Z., & Tatar, Y. (2023). Evaluation of the relationship between theory of mind relating to cognitive performance and post-traumatic stress disorder in Syrian refugee amputees living in Turkey. Irish Journal of Medical Science (1971-), 192(2), 785-793.
5. Wiseman C, Lawrence AD, Bisson JI et al (2022) Study development and protocol for a cohort study examining the impact of baseline social cognition on response to treatment for people living with post-traumatic stress disorder. Eur J Psychotraumatol 13(1):2093036. https://doi.org/10.1080/20008198.2022.2093036

[Abstract:0617] [Psychosomatic medicine-Liaison psychiatry]
Psychiatric Disorders in Multiple Sclerosis

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Multiple Sclerosis(MS) is one of the most common diseases, causing deprivation in physical, social, emotional and cognitive areas of an indiviual's life. It begins in young adulthood period and causes long-term treatments, interruptions in work, social and private life goals from the diagnosis, and uncertainties about the future due to the unpredictable course of the disease. Due to all these conditions, psychiatric disorders are more common in MS than in the general population. The presence of psychiatric comorbidities leads to a decrease in quality of life, an increase in comorbid symptoms such as fatigue and forgetfulness, and a decrease in compliance to treatment.

Psychiatric disorders in MS are a multicomponent situation resulting from the direct neuropathophysiological effects of the disease as well as emotional states and psychosocial stressors caused by the awareness of the disease and its losses, and the possible side effects of the medications used. The prevalence of depressive symptoms in MS patients is higher than the prevalence of depression associated with the general medical condition. Although depression is common in MS patients, there are difficulties in its diagnose and treatment. Overlapping symptoms such as fatigue, appetite disorders, memory and focus problems make diagnosis difficult. Focusing on thought content rather than depressive mood and somatic symptoms is guidance for diagnosis. In the studies, the rate of depression cases not diagnosed and untreated is 23-30%.
In the literature, the prevelance of anxiety symptoms comorbid with MS between 25% and 41%. The main factors that cause severe and persistent anxiety in MS patients are concerns about the uncertainty and unpredictability of the outcome of the disease and the severity of exacerbation in MS. Studies show that the diagnosis of anxiety disorder is frequently missed in MS patients with anxiety disorder and only half of them can reach a treatment.
In a study of 8983 patients with MS, the prevalence of Bipolar Disorder is reported 2.4%, which is much higher than the general population. It can be seen especially in affective lability MS exacerbations. Affective symptoms in MS are also associated with the location of MS lesions.
It is shown that alcohol use disorder is more common in MS than in the general population. It is associated with young and highly educated men. Frequent and regular use of alcohol in MS patients may cause cognitive damage and increase in balance and coordination disorders.
There are psychiatric side effects in the agents used in the treatment of MS as well as in MS itself. The use of corticosteroids, an agent frequently usded in treatment of MS, should be closely monitored due to side effects of sleep disorders, mood disorders and psychotic symptoms. Interferon used in the treatment of MS is often associated with depressive symptoms. It is recommended to be careful for the risk of depression and suicide, especially in the first 6 months of treatment, and to monitor for depressive symptoms on a regular basis.

Keywords: Psychiatric Disorders, Multiple Sclerosis, Depression, Comorbidity, Anxiety

References

Chwastiak, L. A., & Ehde, D. M. (2007). Psychiatric issues in multiple sclerosis. Psychiatric Clinics of North America, 30(4), 803-817.
Beier, M., D'Orio, V., Spat, J., Shuman, M., & Foley, F. W. (2014). Alcohol and substance use in multiple sclerosis. Journal of the neurological sciences, 338(1-2), 122-127.
Janssens AC, van Doorn PA, de Boer JB, et al. Impact of recently diagnosed multiple sclerosis on quality of life, anxiety, depression and distress of patients and partners. Acta Neurol Scand. 2003;108(6):389-395
Marrie, R. A., Reingold, S., Cohen, J., Stuve, O., Trojano, M., Sorensen, P. S.,.. & Reider, N. (2015). The incidence and prevalence of psychiatric disorders in multiple sclerosis: a systematic review. Multiple Sclerosis Journal, 21(3), 305-317.

[Abstract:0618] [Psychopharmacology]
The Pharmalogical Approach to Aggression in Children and Adolescents

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Aggression is one of the most common reasons why children and adolescents apply to psychiatric clinics and can occur with many psychiatric and neurological disorders (1,2,3). The severity of aggressive behavior in children is associated with significant individual, familial and social economic burdens that increase with the age of the aggressive child (4). There are many reasons in the etiology of aggression and it requires a complex evaluation strategy, especially in very young children. In most cases, a child's aggressive behavior can be successfully extinguished. It requires evidence-based approaches to the underlying condition(s) of the child or adolescent and psychosocial intervention, especially targeting aggressive behavior, and then pharmacological intervention if it continues (5). Drug classes used in pharmacological treatment include psychostimulants, α-2 agonists, mood-stabilizing agents and atypical antipsychotics. Published guidelines recommend systematic and sequential trials of medications at appropriate dosing to optimize drug response and minimize polypharmacy (6).

Keywords: Aggression, Pharmacology, Treatment, Child and adolescent

References

1)Connor DF: Aggression and Antisocial Behavior in Children and Adolescents: Research and Treatment. New York, NY, The Guilford Press, 2002.

2)Bambauer KZ, Connor DF: Characteristics of aggression in clinically referred children. CNS Spectr 10:709–718, 2005.
3)Jensen PS, Youngstrom EA, Steiner H, Findling RL, Meyer RE, Malone RP, Carlson GA, Coccaro EF, Aman MG, Blair J, Dougherty D, Ferris C, Flynn L, Green E, Hoagwood K, Hutchinson J, Laughren T, Leve LD, Novins DK, Vitiello B: Consensus report on impulsive aggression as a symptom across diagnostic categories in child psychiatry: Implications for medication studies. J Am Acad Child Adolesc Psychiatry 46:309–322, 2007.
4)Raaijmakers MA, Posthumus JA, van Hout BA, van Engeland H, Matthys W. Cross-sectional study into the costs and impact on family functioning of 4-year-old children with aggressive behavior. Prev Sci 12:192–200, 2011.
5)Drew H. Barzman & Robert LF. Pharmacological treatment of pathologic aggression in children International Review of Psychiatry, April 2008; 20(2): 151–157.
6)Tina Gurnani, Iliyan Ivanov and Jeffrey H. Newcorn, Pharmacotherapy of Aggression in Child and Adolescent Psychiatric Disorders Journal of Child and Adolescent Psychopharmacology Volume 26, Number 1, 2016.

[Abstract:0620] [Addiction Psychiatry]
Individual Variability to Addictive Substances and Therapeutical Drug Monitoring in Addictive Disorders

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Therapeutical Drug Monitoring (TDM) is the clinical practice of measuring drug concentrations in a patient's blood stream to maintain a steady state concentration, thereby optimizing individual dosage regimens. Normally, TDM is used mainly for monitoring drugs with narrow therapeutic ranges, drugs with marked pharmacokinetic variability, medications for which target concentrations are difficult to monitor, and drugs known to cause therapeutic and adverse effects. When combined with the individual pharmacogenetics information of a patient, TDM refers to the individualization of drug dosage by maintaining plasma or blood drug concentrations within a targeted therapeutic range or window. For the addictive substances to measure the drug concentration in the biological fluids is the main method to understand if a person has abused any addictive drugs or not and LC/MSMS system is the golden standard to measure these levels. However, while measuring these levels all the pharmacokinetic parameters and their inter-individual variations must be taken into account to identify clearly when and how much drug has been abused. Taking into account the absorption, distribution, metabolism and elimination rates and their inter-individual variations, physicians can more precisely follow up the addictive drugs in biological fluids and samples such as urine, blood, hair etc. All the pharmacokinetic parameters are strongly related to the pharmacogenetics data of a person responsible from these ADME steps. Therefore it is important to identify when a person have abused these addictive substances especially when if these results are important in criminal events.

Keywords: Addictive substances, Therapeutic drug monitoring, pharmacogenetics.

References:
1. Kang JS, Lee MH. Overview of therapeutic drug monitoring. Korean J Intern Med. 2009 Mar;24(1):1-10. doi: 10.3904/kjim.2009.24.1.1. PMID: 19270474; PMCID: PMC2687654.
2. Birkett DJ. Pharmacokinetics made easy: therapeutic drug monitoring. Aust Prescr. 1997;20:9–11.
3. Ensom MH, Davis GA, Cropp CD, Ensom RJ. Clinical pharmacokinetics in the 21st century: does the evidence support definitive outcomes? Clin Pharmacokinet. 1998;34:265–279.
4. Carrico JM. Human Genome Project and pharmacogenomics: implication for pharmacy. J Am Pharm Assoc. 2000;40:115–116.

[Abstract:0621] [Attention deficit hyperactivity disorder (ADHD)]
Psyhoeducation for Attention Deficit Hyperactivity Disorder

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This presentation highlights the significance of psychoeducation as a crucial component in the comprehensive management of Attention-Deficit/Hyperactivity Disorder (ADHD). ADHD, characterized by symptoms of inattention, hyperactivity, and impulsivity, poses challenges across the lifespan. Psychoeducation equips individuals, families, and caregivers with knowledge and practical strategies to navigate ADHD effectively. Its key components include understanding ADHD, symptom recognition, treatment options, skill development, education and advocacy, family involvement, coping strategies, and goal setting. Psychoeducation fosters empowerment and reduces stigma, contributing to improved well-being and a more informed society regarding ADHD.

Keywords: ADHD, psychoeducation, symptom recognition, treatment options, skill development

References

1. Montoya, A., Colom, F., & Ferrin, M. (2011). Is psychoeducation for parents and teachers of children and adolescents with ADHD efficacious? A systematic literature review. European psychiatry, 26(3), 166-175.
2. Dahl, V., Ramakrishnan, A., Spears, A. P., Jorge, A., Lu, J., Bigio, N. A., & Chacko, A. (2020). Psychoeducation interventions for parents and teachers of children and adolescents with ADHD: A systematic review of the literature. Journal of developmental and physical disabilities, 32, 257-292.
3. Powell, L. A., Parker, J., Weighall, A., & Harpin, V. (2022). Psychoeducation intervention effectiveness to improve social skills in young people with ADHD: A meta-analysis. Journal of Attention Disorders, 26(3), 340-357.

[Abstract:0622] [Schizophrenia and other psychotic disorders]
Theory of Mind in Schizophrenia

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Social cognition, the ability to understand the intentions and mental states of others, is crucial for successful social interactions, enabling individuals to interpret the intentions and mental states of others and exhibit appropriate and contextually suitable behaviors within social situations (1). In a workshop supported by the National Institute of Mental Health in 2008, it was recommended that social cognition be examined in five domains. These domains are as follows: 1. Theory of Mind, 2. Emotional processing, 3. Attributional bias, 4. Social perception, and 5. Social knowledge (2).
Theory of Mind refers to the capacity to interpret the intentions, beliefs, and underlying mental states behind the behaviors of others. While Theory of Mind is often treated as a single skill in many studies, in reality, it encompasses not only information about thoughts and beliefs but also information about emotional states and feelings (1). Consequently, some studies consider theory of mind as a two-component structure: perceptual theory of mind, which refers to mental state decoding, and cognitive theory of mind, which is the reasoning of the mental state (1). Cognitive Theory of Mind refers to the capacity to make inferences about the beliefs and intentions of others, while perceptual Theory of Mind represents the ability to understand what the other person is feeling (1,3). Perceptual theory of mind allows individuals to perceive emotions by deciphering the mental states of others based on observable information such as facial expressions and gestures. While it is associated with the recognition of basic emotions, it also encompasses the recognition of complex mental states (1). Impairments in Theory of Mind skills have been observed in conditions like autism, schizophrenia, and bipolar disorder, significantly affecting the social functioning of affected individuals. Particularly in individuals with schizophrenia, a notable deficiency in understanding emotions and intentions is evident (1). Theory of Mind skills play a critical role in facilitating effective social interaction for patients and disruptions in these skills can lead to social misunderstandings, inappropriate interpersonal relationships, and social withdrawal (1). Especially, the inability of antipsychotic medications to demonstrate the expected therapeutic effects on Theory of Mind skills associated with social functioning in schizophrenia patients has led to a focus on rehabilitation efforts (1). Theory of Mind has been specifically linked to negative symptoms in schizophrenia patients. Difficulties in establishing relationships and symptoms such as social withdrawal may be a consequence of the impairment in Theory of Mind skills (1). The repetition of certain activities, such as repeatedly watching and reading certain things by schizophrenia patients, may be related to their inability to grasp event patterns, while difficulties in interpersonal relationships could stem from the absence of a mental representation of the other person in their own mind (1). In light of this information, impairments in Theory of Mind skills can lead to a decrease in the real-life relationships of schizophrenia patients and negatively affect their social functioning.

Keywords: schizophrenia, theory of mind, social cognition, perceptual theory of mind, cognitive theory of mind

References

1) Gürcan MB, Yildiz M, Patir K, Demir Y. The Effects of Narrative and Movie Therapy on the Theory of Mind and Social Functioning of Patients with Schizophrenia. Noro Psikiyatr Ars. 2021;58(2):108-114. Published 2021 Jun 3. doi:10.29399/npa.27291

2) Green MF, Penn DL, Bentall R, et al. Social cognition in schizophrenia: an NIMH workshop on definitions, assessment, and research opportunities. Schizophr Bull. 2008;34(6):1211-1220. doi:10.1093/schbul/sbm145
3) Bora E, Gökçen S, Kayahan B, Veznedaroglu B. Deficits of social-cognitive and social-perceptual aspects of theory of mind in remitted patients with schizophrenia: effect of residual symptoms. J Nerv Ment Dis. 2008;196(2):95-99. doi:10.1097/NMD.0b013e318162a9e1

[Abstract:0623] [Addiction Psychiatry]
Pharmacological Approaches for Substance Use Disorders with Comorbid Mood and Anxiety Disorders

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In studies of child and adolescents with substance use disorders (SUDs), the majority have a co-occurring nonsubstance-related psychiatric disorder. In cases of SUDs with comorbidity, psychopharmacological treatment responses can be lower compared to situations where comorbidity is not present. In the psychopharmacological treatment of comorbid mood and substance use disorders, the goals include treating mood disorder's symptoms, relieving withdrawal symptoms, and preventing relapse to SUDs. The ideal medication should have low abuse liability, require infrequent dosing, be well tolerated, and have few side effects. In the treatment of co-occurring bipolar disorder and SUDs in adolescents, lithium and valproate are preferred. Valproate has been shown to reduce cannabis use in bipolar adolescents. Lithium may reduce substance use in adolescents. Carbamazepine, lithium, and especially lamotrigine can affect both mood and substance use symptoms in adolescents with a diagnosis of bipolar disorder and cocaine addiction. If pharmacotherapy is required in comorbid anxiety disorders with SUDs in adolescents, the use of selective serotonin reuptake inhibitors, tricyclic antidepressants, or buspirone is preferred over the use of benzodiazepines. The literature on pharmacotherapy for comorbid mood and anxiety disorders in adolescent SUDs is limited. In this presentation, with the support of current literature data, pharmacotherapy options for mood and anxiety disorders in child and adolescents with SUDs will be discussed.

Keywords: Substance Use Disorders, Comorbidity, Mood disorders, Anxiety disorders, Pharmacological Approaches

[Abstract:0624] [Perinatal psychiatry]
Managing Delivery Process in Schizophrenia Patients: "Multidisciplinary Approach"

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In women with severe mental disorders such as schizophrenia and psychosis, it is crucial to closely and timely monitor the pregnancy, childbirth, and early postpartum period. The adaptation of cases to childbirth and the processes begins with a detailed psychiatric evaluation. In pregnant women with schizophrenia, it is recommended to establish a multidisciplinary team (including a general practitioner, midwife, obstetrician, psychiatrist, and psychologist) with whom a mutual trust relationship ideally begins before the obstetric follow-up and admission to the hospital for childbirth. This team will manage the process, evaluating both the well-being of the pregnant woman and the fetus at various stages, starting from the pre-delivery period. In addition to non-pharmacological pain management measures, it is essential to provide support through frequent communication to pregnant women. To make childbirth support even more effective, it should ideally begin before childbirth. This is because a woman getting to know her body, learning about her anatomy, and being able to recognize messages from her instincts can help her manage childbirth more comfortably [1]. One of the objectives of childbirth support is to assist the woman in coping with the process of childbirth, ensuring she has a positive childbirth experience, and enhancing her transition into motherhood. Providing childbirth support from a midwife includes being continuously present with the woman throughout the expected duration of labor, offering constant emotional support, ensuring her comfort, providing information to the woman and her family about the progress of labor, offering suggestions, and guiding and emotionally supporting the woman's partner or loved one who is present. Having adequate knowledge about schizophrenia and other psychotic disorders is essential for the midwife or physician providing childbirth support. This knowledge enables the early detection of potential risks that may arise during the labor process and facilitates the identification of signs that could pose a danger to both the mother and the baby. While previously it was recommended to have a comprehensive postpartum visit within the first six weeks after childbirth (by The American College of Obstetricians and Gynecologists), it is now advised that postpartum care should be an ongoing process rather than a single encounter. It is recommended that all women should have contact with obstetric care providers, such as obstetricians or other healthcare providers, within the first three weeks after childbirth. In the initial assessment, women should be followed up with ongoing care as needed, and it should be concluded with a comprehensive postpartum visit no later than 12 weeks after childbirth. This visit should serve as a transition to ongoing well-woman care and the timing of the visit should be personalized and woman-centered. The healthcare team may include mental health professionals who can provide psychiatric support.The emotional state and emotional well-being of the expectant mother who will be giving birth, her knowledge and skill level related to infant care and feeding, as well as her understanding of topics such as sexuality, contraception, and birth spacing, should be comprehensively assessed. Additionally, her knowledge and capacity to maintain regular sleep patterns and cope with fatigue should also be evaluated.

Keywords: Delivery, Maternal Schizophrenia, Mother, Serious Mental Illness, Psychotic Disorder

References

1.Rathfisch G. (2018). Doğal Doğum Felsefesi. Nobel Tıp Kitabevleri 2. Baskı. İstanbul

[Abstract:0625] [Psychotherapy]
Psychoeducation for Anxiety Disorders

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Anxiety disorders are one of the most prevalent mental health issues in children and adolescents, and they can significantly disrupt both the family and the child's functioning. Psychoeducation involves providing age-appropriate information about anxiety, its symptoms, and coping strategies to both the affected individuals and their families. It helps in improving awareness and understanding of anxiety, reducing stigma, and fostering a supportive environment. Studies demonstrate that psychoeducation interventions hold a significant place in the treatment of anxiety disorders. Psychoeducation is one of the key components of cognitive-behavioral therapy, which has been shown to be effective in the treatment of childhood anxiety disorders. There are studies indicating that psychoeducation interventions alone can be beneficial, especially in the treatment of anxiety disorders during adolescence. In this presentation the role of psychoeducation in anxiety disorders in children and adolescents, as well as psychoeducational interventions will be discussed.

Keywords: child, adolescent, anxiety, psychoeducation

[Abstract:0626] [Psychotherapy]
Psychoeducation for Depression

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Depression is common in adolescence and causes distress for the young person and his/her family. It is associated with social and educational impairment. It also predicts suicide, deliberate self-harm and poor physical health and may signal the onset of long-term mental health difficulties. Therefore, early treatment and prevention of adolescent depression is a significant public health issue. However, depression in this age group is challenging to recognize and treat, and engaging young people in prevention and early intervention programs is challenging for health and other services [1].
Guidelines for depression in young people emphasize the need for good information and evidence-based psychosocial interventions for the young person, family and carer. Psychosocial interventions are likely crucial for promoting resilience and preventing relapse in young people. Although the risk factors and possible causes of adolescent depression are complex, individuals with a family history of depression and psychosocial stress are known to be at higher risk and may be targeted for such strategies along with those with a history of depression [2]. In recent years, there has been increasing interest in psychoeducational interventions, i.e., providing individuals, families and carers with accurate information about mental health or a specific diagnosis (including possible causes and symptoms), management (including associated risks/side effects) and prognosis, and how affected individuals can stay well.
Research has shown that family psychoeducation can be beneficial for adolescents with depression. A pilot study involving adolescents with major depression found that family-focused psychoeducation, when used as an adjunct to medications, resulted in improvements in depression, manic symptoms, and behavior problems over one year [3]. Another study found that patients who experienced family psychoeducation showed more significant improvements in social functioning and the adolescent-parent relationship compared to the control group. In addition to family psychoeducation, evidence supports the use of other forms of psychoeducation for depression in children and adolescents. A web-based psychoeducational intervention called MoodHwb was explicitly developed for adolescents with depression. This intervention aims to provide education about the causes, symptoms, course, and different treatments of depression, as well as the risks associated with these treatments [4]. Technological platforms based on psychoeducation have also shown promise in providing mental health services for adolescents. These platforms aim to fulfill the therapeutic potential of psychoeducation by meeting the demand for information about depression among young people [5]
In conclusion, psychoeducation is a valuable approach to treating depression in children and adolescents. Family psychoeducation, web-based interventions, and technological platforms can provide education, support, and skills to help young people and their families effectively manage depression. These interventions have shown promise in

improving symptoms, social functioning, and the adolescent-parent relationship. Further research is needed to continue exploring the effectiveness of psychoeducation in treating depression in this population.

Keywords: child, adolescent, depression, psychoeducation

References

1. Thapar A, Collishaw S, Potter R, Thapar AK (2010) Managing and preventing depression in adolescents. BMJ 340:254–258. https://doi.org/10.1136/BMJ.C209
2. Thapar A, Collishaw S, Pine DS, Thapar AK (2012) Depression in adolescence. The Lancet 379:1056–1067. https://doi.org/10.1016/S0140-6736(11)60871-4
3. Sanford M, Boyle M, McCleary L, Miller J, Steele M, Duku E, Offord D (2006) A Pilot Study of Adjunctive Family Psychoeducation in Adolescent Major Depression: Feasibility and Treatment Effect. J Am Acad Child Adolesc Psychiatry 45:386–395. https://doi.org/10.1097/01.CHI.0000198595.68820.10
4. Jones RB, Thapar A, Rice F, Beeching H, Cichosz R, Mars B, Smith DJ, Merry S, Stallard P, Jones I, Thapar AK, Simpson SA (2018) A Web-Based Psychoeducational Intervention for Adolescent Depression: Design and Development of MoodHwb. JMIR Ment Health 2018;5(1):e13 https://mental.jmir.org/2018/1/e13 5:e8894. https://doi.org/10.2196/MENTAL.8894
5. Dysthe KK, Haavet OR, Røssberg JI, Brandtzaeg PB, Følstad A, Klovning A (2021) Finding Relevant Psychoeducation Content for Adolescents Experiencing Symptoms of Depression: Content Analysis of User-Generated Online Texts. J Med Internet Res 2021;23(9):e28765 https://www.jmir.org/2021/9/e28765 23:e28765. https://doi.org/10.2196/28765

[Abstract:0627] [Schizophrenia and other psychotic disorders]
The cultural dimension of possession and possession relationship with psychosis

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The cultural dimension of possession and possession relationship with psychosis
Dissociation:
Dissociation: It is defined as the division or disruption of usually integrated functions (e.g., consciousness, perception, attention, memory and identity) in DSM 5.
Dissociation: It carries meanings such as Dissolution, Division, Separation, and Moving away
Dissociative Disorders in DSM – 5
Dissociative Identity Disorder (DID - Possession)
Dissociative Amnesia (Dissociative Fugue)
Depersonalization/Derealization
Another unspecified dissociative disorder
Unspecified dissociative disorder
Dissociative Identity Disorder
Dissociative Identity Disorder: A certain division of identity with two or more separate personalities is defined as “demon possession” in some cultures.
DID in DSM-5
Possession ?
Possession: Property, Estate, Ownership.
Ownership, property, possession.
Possession: The state of having the right to use something that belongs to oneself as one wishes in line with the laws, a legal relationship that gives one the right to use one's own thing as one wishes.
Cultural View on the Concept of Possession
It is defined differently in different cultures and beliefs.
Possession experiences have different manifestations in different cultures (e.g., paganism, Haitian Voodoo, African traditionalism, Buddhism, Hinduism, Judaism, and evil spirits in Christianity).
Demon possession in Muslim societies
In Christian societies, the evil spirit (usually defined as devil, etc.) takes over the body.
It has different appearances in older religions and cultures
jinn
Demon possession in Muslim societies: Here, the belief is that beings that are called “jinn” take over, control and influence a person's body.
Possession in Different Cultures
Possession by an evil spirit (devil)

Djinnati: Balochistan
Zar: Ethiopia, Egypt, Sudan, Yemen
Haitian Voodoo
Dissociative Psychosis
Dissociative Psychosis: Currently, Dissociative Psychosis is not recognized as a formal diagnostic category, many clinical manifestations of dissociative psychosis have been associated with trauma-induced dissociation or various psychiatric disorders in isolated cases.
A significant and significant relationship between traumatic experiences and structural dissociation of the personality must be proven to argue the presence of a psychotic episode that can be defined as “Dissociative Psychosis”.
DSM – 5, Psychosis - Schizophrenia
Diagnostic criteria differences of Non-Organic Psychosis Schizophrenia
DSM-5 - DID - Possession
Schnederian symptoms and possession
DID, Posession, Psychosis, or Schizophrenia
Does ignoring different beliefs and cultural experiences cause misdiagnosis?

Keywords: possesion, Psychosis,Schizophrenia,DID

[Abstract:0628] [Autism Spectrum Disorders]
Theory of mind (ToM) and social skills in children with high-functioning autism

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Autism Spectrum Disorder (ASD) is a complex neurodevelopmental condition characterized by deficits in social communication and interaction, coupled with the presence of restricted and repetitive behaviors[1]. The substantial heterogeneity observed in the behaviors, skills, and learning requirements among individuals diagnosed with ASD has led to its classification as a spectrum disorder. Within this broad spectrum, individuals diagnosed with ASD exhibit diverse social, cognitive, motor, behavioral, language, and communicative characteristics. Notably, within the spectrum, there exists a subgroup of individuals with ASD who demonstrate proficient language and cognitive development but encounter challenges in the domain of social skills. In scholarly literature, these individuals are often referred to as having "high-functioning ASD"[2] Despite their cognitive abilities, those diagnosed with high-functioning ASD frequently struggle to comprehend and navigate social situations effectively. They commonly exhibit limited awareness of the social interaction norms and possess deficiencies in social skills, which can significantly compromise their overall quality of life. One of the hallmark features distinguishing individuals with high-functioning ASD is their struggle to acquire and demonstrate these essential social skills. Consequently, there is a recognized need for targeted social skills interventions tailored to this subgroup. The Theory of Mind framework, as conceptualized by Uta Frith and elucidated by Baron-Cohen, Howlin, and Hadwin, stands as the predominant theoretical construct employed to explicate the cognitive and social developmental challenges encountered by individuals with Autism Spectrum Disorder[3]. Theory of Mind refers to the capacity to ascribe subjective mental states to oneself and others, a pivotal skill for comprehending one's own behavior and that of others. Autism Spectrum Disorders (ASD) are strongly associated with deficits in Theory of Mind skills. In light of the substantial body of research that has substantiated Theory of Mind impairments in individuals with ASD, interventions aimed at enhancing Theory of Mind skills have been developed and implemented globally. Given the wide array of practices designed to improve Theory of Mind and social skills, there arises a pressing need to identify the most effective approaches. Thus, this study delves into an examination of Theory of Mind and social skills interventions that have demonstrated efficacy, with a specific focus on children diagnosed with high-functioning autism.

Keywords: autism, asperger, social skills, theory of mind, high-functioning autism, children

References

Association AP. Diagnostic and statistical manual ofmental disorders (DSM-5®): American Psychiatric Pub; 2013.
Rimm, S. B., Siegle, D., & Davis, G. A. Education of the gifted and talented. Boston, MA: Pearson; 2018: (233-236).
Howlin, P., Baron-Cohen, S., & Hadwin, J.Teaching children with autism to mind-read: a practical guide. Chichester: John Wiley & Sons; 2003.

[Abstract:0629] [Attention deficit hyperactivity disorder (ADHD)]
Clinical Experience of the Use of Guanfacine in the Child and Adolescent Psychiatry Clinic

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Guanfacine is a selective alpha-2A-adrenergic receptor agonist initially approved for the treatment of hypertension and later for the treatment of attention deficit hyperactivity disorder (ADHD). Guanfacine is approved by the United States Food and Drug Administration (FDA) as monotherapy and combined therapy with stimulants for the treatment of ADHD in children and adolescents aged 6 to 17 years. In Turkey, it appears that there are no clinical studies on the use of guanfacine in children and young people. The aim of this study was to examine the effectiveness and side effect profile of extended-release guanfacine treatment in children and young people who were followed up with a diagnosis of ADHD in our outpatient clinic.Between February 2023 and September 2023, 28 children who were followed up with a diagnosis of ADHD and used guanfacine in their treatment at Afyonkarahisar Health Sciences University Hospital Child Psychiatry Polyclinic were examined. The data were obtained from file records that were preserved during follow-up at an outpatient clinic. Clinical Global Impression (CGI)-Severity Scale was used to determine the severity of the disease before starting guanfacine treatment, and CGI-Improvement Scale was used to evaluate the level of improvement after treatment started.
28.6% (n = 8) of the patients were female and 71.4% (n = 20) were male. The age mean was 10.7± 2.6 years (min=6, max=16). 25% (n=7) of the patients had ADHD attention deficit dominant type, and 75% (n=21) had ADHD compound type. While the most common accompanying diagnosis of ADHD was conduct disorder (n=9), autism spectrum disorder and specific learning disability were other frequently accompanying diagnoses. While guanfacine was used as monotherapy in 4 patients, 2 or more psychotropic drugs were used along with guanfacine in 12 patients. The most commonly used drugs with guanfacine were psychostimulants. The average guanfacine dose used was 2.8 milligrams (mg) (min=1, max=6). 25% of the patients (n=7) discontinued guanfacine treatment due to drug side effects. The most common side effect was sedation. An severe allergic reaction was seen in one patient, and the treatment was stopped. While the mean value of CGI-Severity before guanfacine treatment was 5 (significantly ill), the mean value of CGI-Severity after treatment was 4 (moderately ill). A statistically significant correlation was detected between guanfacine dose and CGI-Improvement scores. As the dose of guanfacine increased, greater improvement in disease symptoms was observed. When the response to guanfacine treatment was compared with CGI-Improvement scores according to ADHD subtype, no significant difference was detected between ADHD subtypes. When CGI-Improvement scores were compared according to the gender of the patient, no statistically significant difference was detected. No significant correlation was observed between age and CGI-Improvement scores.
Our study is the first study examining extended-release guanfacine treatment in our country. It has been observed that there is a significant improvement in ADHD symptoms with extended-release guanfacine treatment. It has been determined that the response to treatment increases, especially with an increase in dose appropriate to weight. This study is a preliminary study for future studies on extended-release guanfacine treatment.

Keywords: attention deficit hyperactivity disorder, treatment, guanfacine

[Abstract:0630] [Attention deficit hyperactivity disorder (ADHD)]
Use of Guanfacine for the Treatment of Attention Deficit Hyperactivity Disorder

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According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), Attention Deficit Hyperactivity Disorder (ADHD) is one of the most prevalent neurodevelopmental disorders. It is characterized by symptoms such as excessive levels of impulsivity, hyperactivity, and inattention that can have an impact on a child's or adolescent's academic, social, and personal functioning. The worldwide prevalence of ADHD for children has been estimated to be as high as 7-12%, making it one of the most common psychiatric disorders in children and adolescents. Children with ADHD may continue to experience symptoms into adulthood.
Although the precise etiology of ADHD remains unknown, most effective therapies facilitate catecholaminergic transmission, especially in the prefrontal cortex (PFC). The current recommended course of treatment for ADHD includes the use of both stimulant drugs like methylphenidate and amphetamines as well as non-stimulant drugs like atomoxetine. These medications are effective in decreasing symptoms of ADHD, but they can also have significant side effects.
The need for therapeutic alternatives is driven by the fact that 25-35% of patients do not receive a therapeutic benefit from psychostimulants because of inadequate symptom relief, intolerable side effects, or nonadherence. Children with ADHD may benefit from taking alpha-2 agonists, such as guanfacine and clonidine. The United States (US) Food and Drug Administration has given the GXR its approval for the treatment of ADHD in patients aged 6 to 17 years, either as

a monotherapy or as a supplement to stimulants. These drugs specifically target the brain's alpha-2 adrenergic receptors, which can improve attention and lessen the symptoms of impulsivity and hyperactivity in children with ADHD. The selective 2A-receptor agonist guanfacine extended-release (GXR) is thought to directly engage postsynaptic receptors in the PFC, an area of the brain thought to play a significant role in attentional and organizational functions that have been associated with ADHD in preclinical research. Studies using functional neuroimaging show that guanfacine selectively and specifically activates the frontal and frontal association regions while 'turning down' or inhibiting striatal activity.
Alpha-2 agonists are useful in reducing the symptoms of ADHD in children. However, more research is still required to fully understand these medications' long-term efficacy and safety. It is unclear how Alpha-2 agonists affect growth, cardiovascular function, and other long-term adverse events. Despite these drawbacks, alpha-2 agonists are still a useful treatment option for ADHD in children, especially for those who cannot tolerate stimulant medications or who additionally have additional conditions like tic disorders.
In conclusion, Alpha-2 agonists have promise as a treatment for ADHD in children, but more research is needed to determine their long-term safety and effectiveness. It is necessary to conduct more research to determine the ideal dosage and length of treatment for these drugs when used to treat this disease.

Keywords: Attention Deficit Hyperactivity Disorder, Children and adolescents, Guanfacine, Alpha-2 agonists

References

1. Sallee, F.R. and K. Eaton, Guanfacine extended-release for attention-deficit/hyperactivity disorder (ADHD). Expert Opin Pharmacother, 2010. 11(15): p. 2549-56.
2. Neuchat, E.E., et al., The Role of Alpha-2 Agonists for Attention Deficit Hyperactivity Disorder in Children: A Review. Neurol Int, 2023. 15(2): p. 697-707.
3. Childress, A., A. Hoo-Cardiel, and P. Lang, Evaluation of the current data on guanfacine extended release for the treatment of ADHD in children and adolescents. Expert Opin Pharmacother, 2020. 21(4): p. 417-426.

[Abstract:0631] [Schizophrenia and other psychotic disorders]

Clinical Course of Autoimmune Encephalitis, NMDA Receptor and Other Subtypes of Aoutoimmune Encephalitis, Diagnosis and Treatment

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Autoimmune encephalitis is a disease caused by autoantibodies that target neural epitopes or intracellular antigens, such as synaptic surface structures. It is one of the most common causes of non-infectious encephalitis (1,2). Subacute-onset recent memory disorders, mental status changes or presence of psychiatric findings, new-onset focal CNS findings, seizures without a previously known diagnosis of epilepsy, increased cells in CSF (leukocyte>5/mm³), MRI findings suggestive of encephalitis and exclusion of other possible causes. is important in the diagnosis of autoimmune encephalitis (1). Anti-NMDA receptor (NMDAR) encephalitis is an autoimmune encephalitis characterized by a complex neuropsychiatric syndrome and the presence of CSF antibodies against the GluN1 subunit of NMDAR (3). To diagnose anti-NMDA receptor encephalitis, clinical signs must be accompanied by CSF analysis, brain MRI, and EEG testing (1). reatment of anti-NMDAR encephalitis requires intensifying immunotherapy, beginning with primary treatments (steroids, intravenous immunoglobulins, or plasma exchange) and advancing to secondary treatments (rituximab or cyclophosphamide) if essential (3).

Keywords: Autoimmune encephalitis, subtypes, NMDA receptor

References

1. Graus, F., Titulaer, M. J., Balu, R., Benseler, S., Bien, C. G., Cellucci, T.,. & Dalmau, J. (2016). A clinical approach to diagnosis of autoimmune encephalitis. The Lancet Neurology, 15(4), 391-404.
2. Patel, A., Meng, Y., Najjar, A., Lado, F., & Najjar, S. (2022). Autoimmune Encephalitis: A Physician's Guide to the Clinical Spectrum Diagnosis and Management. Brain Sciences, 12(9), 1130.
3. Dalmau, J., Gleichman, A. J., Hughes, E. G., Rossi, J. E., Peng, X., Lai, M.,. & Lynch, D. R. (2008). Anti-NMDA-receptor encephalitis: case series and analysis of the effects of antibodies. The Lancet Neurology, 7(12), 1091-1098.

[Abstract:0632] [Addiction Psychiatry]

Pharmacological Agents Used for Substance Replacement Therapies for Child and Adolescents

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Substance use in children and adolescents is important both in terms of its impact on individuals who have not yet completed their brain development and in terms of extending the expected healthy lifespan. During the process of reducing and quitting substance use, withdrawal symptoms and cravings often pose significant challenges. To alleviate withdrawal symptoms and cravings, drugs with similar effects but lower rewarding properties compared to the abused substance can be used. This approach, known as substance replacement therapy or substance agonist therapy, typically favors longer-acting agents to reduce usage frequency. For alcohol and benzodiazepine abuse, longer-acting benzodiazepines may be employed for replacement therapy to eliminate life-threatening withdrawal effects. However, unlike in adult patients, it should be considered that in children and adolescents, the duration and quantity of use can rarely lead to potentially fatal outcomes, such as delirium tremens or seizures.
Withdrawal symptoms in opioid abuse can be severe and last for 7-10 days. Many individuals with opioid misuse issues identify these symptoms as the primary obstacle to reducing substance use. Buprenorphine or methadone can be used to reduce severe withdrawal symptoms and cravings. While there is insufficient evidence for using methadone in children and adolescents, numerous studies and evidence support the use of buprenorphine. Buprenorphine is a partial opioid agonist, reducing withdrawal and cravings, but its rewarding effects are lower compared to full agonists. It is often combined with naloxone in preparations. Naloxone, an opioid antagonist, has low oral bioavailability and is included in preparations as a preventive measure against intravenous use.
Finally, in the case of stimulant use disorders, studies suggest that the use of extended-release forms of methylphenidate can reduce stimulant use, although the level of evidence, especially in children and adolescents, remains limited. Further research is needed.

Keywords: Adolescent, Opioid Use Disorder, Substance Replacement Therapy, Substance Use Disorder, Stimulant Use Disorder,

References

1. Hammond CJ. The Role of Pharmacotherapy in the Treatment of Adolescent Substance Use Disorders. Child Adolesc Psychiatr Clin N Am. 2016 Oct;25(4):685-711. doi: 10.1016/j.chc.2016.05.004. Epub 2016 Aug 2. PMID: 27613346; PMCID: PMC5018301.
2. Clark DB. Pharmacotherapy for adolescent alcohol use disorder. CNS Drugs. 2012 Jul 1;26(7):559-69. doi: 10.2165/11634330-000000000-00000. PMID: 22676261.
3.Borodovsky JT, Levy S, Fishman M, Marsch LA. Buprenorphine Treatment for Adolescents and Young Adults With Opioid Use Disorders: A Narrative Review. J Addict Med. 2018 May/Jun;12(3):170-183. doi: 10.1097/ADM.0000000000000388. PMID: 29432333; PMCID: PMC5970018.
4. Siefried KJ, Acheson LS, Lintzeris N, Ezard N. Pharmacological Treatment of Methamphetamine/Amphetamine Dependence: A Systematic Review. CNS Drugs. 2020 Apr;34(4):337-365. doi: 10.1007/s40263-020-00711-x. PMID: 32185696; PMCID: PMC7125061.

How Deep Learning Can Reveal Mental Illness Effects on Aging and Neurological Disease

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The capacity of mental illness to impact life trajectories and outcomes is well documented, but the relationship of psychiatric diseases to brain aging and to neurodegenerative diseases is poorly understood. Growing evidence from across neuroscience and medicine suggests that psychiatric morbidities can accelerate brain atrophy and impact brain function, as captured by magnetic resonance imaging (MRI). However, the formal relationship between mental health burden and neurological disease risk remains incompletely mapped despite its clinical significance. For example, an important but relatively neglected dimension of lifespan health involves mapping the mechanisms whereby neurodevelopmental factors act on psychiatric wellness throughout the aging process and in later life. This lecture aims to summarize important findings from across neuroimaging, psychiatry, neurology, neurobiology, and gerontology on the relationships between neurodevelopment, brain aging, psychiatry, and neurological disease. Our own and others' deep artificial intelligence (AI) models indicate that, in individual with mental health challenges, the brain's biological age can reflect brain changes related to accelerated aging or abnormal neurodevelopment. Additionally, recent evidence

suggests that risk for neurological conditions such as Alzheimer's disease (AD) may be influenced by developmental factors that include psychiatric disease burden in childhood and adolescence. Accordingly, deep AI results from our laboratory confirm that psychiatric comorbidity can modify AD risk. Analyses of genetic effects on brain structure confirm that psychiatric illnesses interact with complex genetic factors to accelerate brain aging and shorten lifespan. These results map how psychiatric illness during neurodevelopment may result in lifelong adverse effects upon mortality and morbidity. Personalized genetic and MRI profiling of psychiatric patients can be synergized with deep AI approaches to tailor clinical monitoring protocols for high-risk individuals and to reduce the burden of psychiatric illness worldwide.

Being "Patient" On The Axis Of Identity, Role, Somatization And Factitious Disorder Identity and Role

Erol Göka

Abstract
We are used to use psychological terms rashly in daily life. One of these terms is "identity". Identity is the answer of " Who am I?" briefly. But finding this answer needs great effort and time. At the end of time, this answer has continuity, integrity and consistency. Feeling of a strong identity is possible sense of belonging to community, to a group, to a place.
Other important terms are role and statu. The position or the situation that a person occupies in society is called status. Certain functions which are expected from someone because of that status and position are called as roles. In daily life there are many types of roles: father, mother, teacher, doctor, student, politician, worker, voter, consumer, producer…
Moreno carried role term from sociology to psychotherapy. She was impressed from spontaneity of children and observed children at stage, too. She realized the more repeat in their role, the less spontaneity, creativity and inventivity were. Moreno thought that adults lost their spontaneity and creativity in the culture.
Jung's persona is also important for understanding role term. Persona is an element of the personality which arises "for reasons of adaptation or personal convenience." If you have certain "masks" you put on in various situations (such as the side of yourself you present at work, or to family), that is a persona.

Patient Role and Psychiatric Disorders: Case Presentations

Ayşe Gülden Kaya

Abstract
What is the impact of role and identity terms in psychopathology? Let's take a glance at this subject through two cases.
A 41-year-old, male patient with 5 children, divorcing from his wife is admitted to psychiatry service with complaints of talking to himself, staying in home, decreasing in self-care, and talking with imaginary friends. He was hospitalized for a differential diagnosis.
In his psychiatric anamnesis, there was no psychiatry contact. He could complete his soldiership. He had never had a regular job. He had not worked for 1 year. His first complaint started 9 months ago after marital stressors. His wife left home with 5 children 10 months ago.
After assessment, he was diagnosed with " Atypical Dissociative Disorder and Histrionic Personality Patterns". Antipsychotic treatment(quetiapine) and supportive psychotherapy were initiated. In follow-up, the patient had communicated more comfortably, he could explain his complaints more easily and hallucinations were disappeared. He was discharged in 21st day of hospitalization with the treatment of quetiapine 800 mg/day and planned outpatient-psychotherapy.
Munchausen Syndrome is very popular. Why does a person need a "patient role"? What kind of people are susceptible to this? We suggested that people who are not able to assimilate their social role, and place themselves in the community are more prone to "be in a patient role"
In our case, we observed a patient who had no regular job, lost family, not supported by relatives was admitted to psychiatry with colorful psychotic symptoms. "This illness" might be an exit for him in all these conflicts. Munchausen Syndrome is generally known with other medical symptoms but we thought that psychiatric symptoms are not rare.
A 48-year-old, female patient with 2 children was admitted to psychiatry service with complaints of insomnia, dysorganised speaking, talking to herself, mystic thoughts and affective elevation. In his psychiatric anamnesis, there was no psychiatry contact. She was house wife and graduated from primary school. Her complaints started 5 days ago after death of her husband. She was admitted to emergency service with her children after her complaints increasing gradually. She was hospitalized for a differential diagnosis.
After assessment she was diagnosed as "Dissociative Disorder and Complicated Grief. Diazepam 5 mg and risperidone 2 mg pharmacotherapy and supportive psychotherapy were initiated. After first dose of treatment,relieved the symptoms of patient. In follow-up, the patient had communicated more comfortably, she could explain his complaints and emotions

more easily and mystic thoughts were disappeared. There were no pathology MRI, EEG and blood tests. She was discharged in 5th day of hospitalization with the treatment of Diazepam 5 mg and Risperidone 2 mg and planned outpatient- psychotherapy .

Somatoform Disorder vs. Factitious Disorder

Rabia Nazik Ekinci

Abstract
Factitious disorder and somatoform disorder are two distinct yet related mental health conditions characterized by the presentation of physical or psychological symptoms without an underlying medical cause. These disorders pose unique challenges for both patients and healthcare providers, as they involve intricate patterns of symptom fabrication, deception, and often result in unnecessary medical interventions.
Factitious Disorder
Factitious disorder, formerly known as Munchausen syndrome, is a psychiatric illness characterized by the deliberate feigning, exaggeration, or induction of physical or psychological symptoms for the primary purpose of assuming the patient role. Individuals with factitious disorder often go to great lengths to deceive healthcare professionals and may engage in self-harm, manipulate medical tests, or falsify medical histories to maintain the illusion of being unwell.
Somatoform Disorder
Somatoform disorders involve the expression of physical symptoms that cannot be explained by any known medical condition. Unlike factitious disorder, individuals with somatoform disorder are not consciously feigning symptoms; they genuinely believe in their physical distress. These disorders are often associated with significant distress and impairment in daily functioning.
Conclusion: Factitious disorder and somatoform disorder represent unique challenges in the field of mental health. While both involve the expression of physical or psychological symptoms without an underlying medical cause, factitious disorder is characterized by deliberate deception, whereas somatoform disorders involve genuine belief in the symptoms. Understanding the differences between these disorders is crucial for accurate diagnosis and effective treatment, which may include psychotherapy, medication, and a supportive therapeutic relationship to address the complex underlying issues in these individuals' lives.

Somatoform Disorder vs. Factitious Disorder: Case Presentations

Şeyma Uygun

Abstract
A 22-year-old male patient, single, high school graduate, living with his family, not working
The patient's complaints begin during the pandemic. He stops seeing his friends. He starts to spend more time at home and say that his friends had negative opinions about him and that they treated him badly during high school. He thinks his friends are making fun of him. He says that sexual thoughts came to his mind about his sister. And the he makes sure that he is engaging in sexually explicit behaviour towards his own sister. He starts to feel lonely, guilty and useless. He thinks he deserves punishment for his evil deeds.
With these complaints, the patient applies to the external center psychiatry clinic in 2021, and the patient was started on olanzapine 2.5 mg per day, and the treatment was increased to 10 mg per day in the follow-ups.
The patient uses the treatment regularly. When he gets benefit from the treatment, he quits the drugs. His complaints start again and he applies to the outpatient clinic of our hospital.
The patient was admitted to the ward for differential diagnosis. On admission, examinations were performed to exclude organic etiologies. The patient was evaluated in the diagnosis and treatment board. After evaluation mirtazapine and quetiapine treatments were started for the patient with the diagnosis of “adjustment disorder”, mirtazapine was increased to 30 mg and quetiapine to 100 mg in the follow-ups.
L.B.
56-year-old male patient, married, father of 1 child, completed his military service fully and on time, has a bachelor's degree, works in the economics department of an institution.
He has complaints of feeling distressed in social environments, at work and in crowded environments, and therefore, rumbling in his stomach and intestines. For this reason, he applies to the outpatient clinic.
He has not applied to psychiatry clilnic before. He uses low-dose antidepressants with the recommendation of his doctor friend, but he did not get any benefit from the medication.
About 30 years ago he started to feel stressed out in the crowded classroom and his stomach started grumbling. He thinks that this situation has always happened to him throughout his education life. His complaints are always ongoing and their frequency is increasing. And then he applies many departments, all examinations are performed and no organic pathology is found.

He experiences this especially in the meetings of the institution he works for. For this reason, he is ashamed and bored, praying when he feels like it will happen. He thinks that the people sitting around him hears it, and he feels more embarrassed.
He thinks during all his life he could not reach his potential because of this situation, he would have been more successful, this situation preveted him from going to social activities, doing sports and affected him a lot.
The patient is being followed up with the diagnosis of “somatization disorder”. Sulpride 50 mg per day was added to his treatment.

Eating Disorders Treatment Course

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Abstract
CBT-E is the abbreviation for “enhanced cognitive behaviour therapy”, and is one of the most effective treatments for eating disorders. It is a “transdiagnostic” treatment for all forms of eating disorder including anorexia nervosa, bulimia nervosa, binge eating disorder and other similar states (1).
Eating disorders are significant issues with one's mental health that need to be effectively treated. The goal of cognitive behavioral therapy (CBT), an organized and problem-focused approach, is to assist people in understanding and altering their beliefs and practices related to food and eating. All eating disorders can be treated using a new "enhanced" version of CBT called CBT - E. A "transdiagnostic" hypothesis serves as the foundation for the improved form of CBT (2).
Self-monitoring is a crucial component of CBT for eating disorders since it offers a thorough assessment of eating issues and directs the direction of each therapy session. Included are the formulation, techniques, and interventions applied to the created CBT model. It starts with becoming aware of the eating disorder and controlling eating patterns. In contrast to traditional CBT, self-monitoring records are retained rather than thought logs. It focuses on the mechanisms that support the individual's eating disorder. The purpose of the following is to analyze the primary mechanisms that support the eating disorder. Body Image Problems, Dietary Restriction, and the Relationship Between Negavitve Events, Emotions, and Eating are investigated. It is shaped in accordance with the sustaining elements (3).
For the treatment of eating disorders, medications can be a helpful addition to psychotherapy approaches. Bulimia nervosa is frequently treated with antidepressants; high-dose fluoxetine is a prominent strategy, but many other antidepressants can be used as well. Lisdexamfetamine, and antidepressants, that can be used to treat binge eating disorder. In general, medications for anorexia nervosa are not offere, however recent research suggests that olanzapine may have benefits for weight restoration (3).
The clinical aspects of anorexia nervosa, bulimia nervosa, and binge eating disorder will be highlighted in this course, along with the pharmacological and psychological approaches. CBT-E training will also be provided.
Keywords: Eating Disorders, Cognitive behaviour therapy for eating disorders, CBT-E, transdiagnostic, enhanced cognitive behaviour therapy.

References:
Fairburn, C.G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: A "transdiagnostic" theory and treatment. Behaviour Research and Therapy, 41(5), 509-528. doi:10.1016/s0005-7967(02)00088-8
Fairburn, C.G., Cooper, Z., Doll, H.A., O'Connor, M.E., Bohn, K., Hawker, D.M., ... & Palmer, R.L. (2009). Transdiagnostic cognitive-behavioral therapy for patients with eating disorders: A two-site trial with 60-week follow-up. American Journal of Psychiatry, 166(3), 311-319. doi:10.1176/appi.ajp.2008.08040608
Grave, R.D., Calugi, S., & Conti, M. (2019). A conceptual comparison of family-based treatment and enhanced cognitive behavior therapy in the treatment of adolescents with eating disorders. Journal of Eating Disorders, 7(1), 1-10. doi:10.1186/s40337-019-0275-x

Assesment, Clinical Features and Treatment of High-Functioning Autism in Children

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Abstract
ASD is a condition that impairs social interaction, behavior, and communication. The Asperger's syndrome was included in the autism spectrum disorder category in DSM-5, which was created by the American Psychiatric Association.

Previously, Asperger's syndrome was a diagnosis given to those who had trouble interacting with others, had difficulty communicating nonverbally, and had repetitive and constrictive patterns of behavior and interests. However, these signs are now classified as ASD, and those who had previously received an Asperger's syndrome diagnosis are frequently now referred to as having high-functioning autism (HFA) (1).
Although high-functioning can appear in autistic people in various ways, there are a few universal signs to watch out for delayed and may even happen in adulthood—a more typical circumstance among particularly high-functioning individuals. Evaluations for children with HFA are frequently asked for as a result of behavioral and emotional dysregulation. As a result, it's fairly usual for kids with HFA to get mental health diagnoses before the ASD is identified (2).
Having problems socializing with peers is a common sign of high-functioning autism. Many high-functioning autistic individuals may suffer intense emotional reactions and have mood or attention issues the rest of the day as a result of an unpleasant or upsetting normal life experience. High-functioning autistic individuals frequently have strong emotional sensitivity as well as heightened sensitivity to physical experiences, such as loud noises. People with high functioning autism can become hooked on repetition and routine. To fully understand a child's functioning level and treatment requirements, it is frequently important to look beyond a categorical diagnosis (1-3).

In this presentation, the diagnosis, clinical presentation and treatment of HFA in children will be presented.

Keywords: Autism, High-Functioning Autism, Asperger, Children, Adolescent.

References:
Downs and Smith, "Emotional Understanding, Cooperation, and Social Behavior in High-Functioning Children with Autism," Journal of autism and developmental disorders (2004). doi:10.1007/s10803-004-5284-0
Losh and Capps, "Understanding of emotional experience in autism: Insights from the personal accounts of high-functioning children with autism.," Developmental psychology (2006). doi:10.1037/0012-1649.42.5.809
Samson et al., "Emotion Dysregulation and the Core Features of Autism Spectrum Disorder," Journal of autism and developmental disorders (2013). doi:10.1007/s10803-013-2022-5

Eye-Tracking Methodology
What Eye-tracking Methodology Tells Us About Neurodevelopmental Disorders?

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This presentation presents the benefits of using eye-tracking methodology in psychiatry researches. In this presentation, we provide a selection of eye-tracking experiments that have been widely used in psychiatry researches, specifically performed at diLab (http://dilab.ankara.edu.tr/). The aim of the article is to inspire researchers in psychiatry researches to embark on research using eye-tracking methodologies.

Eye-tracking has significant advantages over traditional measures. It allows for more ‘natural’ processing as it does not require a secondary task, and that it provides a very rich moment-to-moment data source. Eye-tracking experiments are suitable for psychiatry researches in many ways. Eye-tracking can be used to examine a variety of phenomena in psychiatry. In this presentation, we provide an overview of the phenomena that have been investigated using eye-tracking and pupillometry, and which we divide into four main areas: (1) visual information processing; (2) auditory processing (listening); (3) simultaneous auditory and visual processing; and (4) visual word processing (reading).

Apart from the above-mentioned methods of eye-tracking, eye movement measurements are also used to assess neurological status. The importance of eye movement measurements has been demonstrated in research on the etiology, genetics and treatment of psychiatric disorders. Research has shown that there may be patterns of impaired eye movement specific to certain diagnoses [1]. For instance, evidence from people with schizophrenia demonstrates that some eye movement measures may be promising phenotypes useful for resolving the genetic transmission of brain abnormalities placing persons at risk for developing this illness [2]. Another example can be given regarding dyslexia: Some researchers have argued that poor binocular coordination can be causally linked to reading difficulty [3].

References:
McDowell, J.E., Clementz, B.A., and Sweeney J.A. (2011). Eye movements in psychiatric patients. In S. P. Liversedge, I. D. Gilchrist, S. Everling (Eds), pp. 687-708, *The Oxford Handbook of Eye Movements*, Oxford: Oxford University Press.

Calkins , M.E. , Iacono , W.G. , and Ones , D.S . (2008). Eye movement dysfunction in first-degree relatives of patients with schizophrenia: a meta-analytic evaluation of candidate endophenotypes. *Brain and Cognition, 68*(3), 436–461.
Kirkby, J.A., White, S.J., Blythe, H.I. (2011). Binocular coordination during reading. In S. P. Liversedge, I. D. Gilchrist, S. Everling (Eds), pp. 801-818, *The Oxford Handbook of Eye Movements*, Oxford: Oxford University Press.

The Language and Speech Development Process from Child Psychiatry Perspective

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Infancy and early childhood, namely the initial years of human life, represent the most sensitive period for brain development. The foundational structures of sensory, motor, cognitive, linguistic, emotional, and social abilities emerge and evolve during these years, subject to numerous influences. During this phase, the child's brain develops at a markedly accelerated pace. By the age of three, approximately 80% of the human brain has formed. Brain development transpires through an interplay of genetic determinants, environmental factors, nutrition, stimuli, among other crucial variables.
Language development commences in utero and persists throughout one's lifespan. The responsiveness of a newborn to sounds suggests that linguistic development begins prenatally, influenced by the infant hearing the mother's voice. The period of most intense speech and language development corresponds to the first three years of life, known as the infancy and early childhood phase. Language acquisition involves the comprehension and use of sounds, numbers, words, symbols, and adherence to linguistic norms. This intricate process relies on innate capabilities intertwined with environmental factors. Even in the womb, infants can discern their mother's voice and its intonations. Post-birth, they rapidly assimilate the language spoken in their surroundings.
Infants initiate their language learning journey by first mastering the sounds in the prevalent language around them. Roughly, phonemic (speech sounds) development happens within the first three months, morphemic (sound combinations and word formation) between 3-9 months, syntactic (grammar and sentence formation) from 9-18 months, and semantic (grasping word and sentence meanings) from 18-36 months. Over time, developments in prosody (speech intonation and rhythm) and pragmatic language use (effective use of language for social communication) transpire.
From birth and into the subsequent weeks, infants produce sounds reminiscent of yawning, grunting, rustling, and snoring. By approximately three months, their response to speech manifests as smiles, and by four months, they communicate by reciprocating sounds. Gradually, the tonal emphasis in infants' sounds becomes more pronounced. Although real comprehension remains absent until the eighth month, from then on, they begin distinguishing words within sentences. From the ninth month onward, a typical infant's receptive vocabulary rapidly expands, reaching an estimated 150-200 words by the 15th month. By the conclusion of the 18th month, an infant boasting a vocabulary of roughly 20 words can employ approximately 2000 words by the age of five.
Each stage of language development is an intricate process influenced by myriad cognitive, social, and emotional factors. A meticulous examination of potential issues at every stage is imperative, necessitating thorough investigations into possible psychological, social, and biological determinants.

Keywords: child; speech; speech development; mental health

Multidiciplinary Treatment for Functional Movement Disorders: Physiotherapy and Rehabilitation for Functional Movement Disorders

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Functional movement disorder (FMD) is a medical condition in which there is a problem with the functioning of the nervous system and how the brain and body sends and/or receives signals, rather than a structural disease process. FMD includes many symptoms and loss of functions such as weakness and/or numbness in the extremities, balance disorders, hearing and vision, swallowing problems and seizures.
Recently, it has been observed that research on FMD has increased in the literature. Although there are different approaches for FMD, multidisciplinary approaches tend to increase with medical teams consisting of specialists such as psychiatrists, psychologists, neurologists and physiotherapists.

Physiotherapy is an important to manage the FMD symptoms such as gait and balance disorders and postural problems. Physiotherapy approaches for FMD are difference than other neurological diseases due to its pathophysiology. First of all, the patients with FMD should encourage to actively participate and make an effort at every stage of the treatment. In the first sessions, patients' attention is shifted away from the affected body part or function towards another part or function. In general, this function is chosen from those that are easy enough for the patient to perform but complex enough to require serious focus and the participation of many body parts. Exercises and approaches aimed at increasing general body awareness, regulating posture and maintaining general body control are also included in the treatment program of these patients. During the treatment process, patients begin to spontaneously perform functions that they could not do before and control the affected body part while doing the exercises. In the following sessions, patients are confronted with their actual physical levels. Finally, the patient is taught regional control by focusing on the affected body part.
In this presentation, physiotherapy practices and general treatment principles within the scope of multidisciplinary management of FMD will be shared through a case study. We will try to touch upon the critical points reported in the literature regarding patient management and share our experiences gained in the clinic.

Keywords: Functional movement disorder, multidiciplinary treatment, physiotherapy and rehabilitation

References:
Dosanjh, M., Alty, J., Martin, C., Latchford, G., & Graham, C. D. (2021). What is it like to live with a functional movement disorder? An interpretative phenomenological analysis of illness experiences from symptom onset to post-diagnosis. *British Journal of Health Psychology*, *26*(2), 325-342.
Lidstone, S. C., Costa-Parke, M., Robinson, E. J., Ercoli, T., & Stone, J. (2022). Functional movement disorder gender, age and phenotype study: a systematic review and individual patient meta-analysis of 4905 cases. *Journal of Neurology, Neurosurgery & Psychiatry*, *93*(6), 609-616.
Jacob, A. E., Kaelin, D. L., Roach, A. R., Ziegler, C. H., & LaFaver, K. (2018). Motor retraining (MoRe) for functional movement disorders: outcomes from a 1-week multidisciplinary rehabilitation program. *PM&R*, *10*(11), 1164-1172.

Multidiciplinary Treatment for Functional Movement Disorders:
Challenges in the Diagnosis of Functional Movement Disorders: Clues from the Neurological Exam

Gül Yalçın Çakmaklı

Functional movement disorders (FMD) are a subgroup of functional neurological disorders and they consist of involuntary movements and postures of body parts incongruent with well defined clinical pictures and pathophysiological basis of movement disorders such as parkinsonism, dystonia, tremor, chorea and/or myoclonus. The annual incidence of FND in the society is 4-12/100,000 and is one of the most common causes of neurological disability. Among patients evaluated for different reasons in the neurology clinic the frequency of FND was 5.4% and the frequency of FMD among patients seen in the movement disorder outpatient clinic was found to be 3-10%.
Clinical tips such as sudden onset, variability of symptoms over time, spontaneous improvements, symptoms not matching any well established movement disorders, inconsistencies in neurological examination, history of mild trauma, presence of multiple somatization symptoms, accompanying psychiatric diseases, secondary gain and having a health-related profession are helpful in the diagnosis. According to DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, 5th edition), the presence of triggering stress in the history is no longer required to confirm the diagnosis. FMD is not a diagnosis of exclusion, the diagnosis should be made based on positive symptoms that are incompatible and inconsistent with known organic HB. On the other hand, just because a movement disorder is strange ("bizarre") or has a feature that has not been seen before does not mean that it is FMD. While FMD may occur isolated, it may accompany other neurological disorders and movement disorders. Observation, detailed neurological examination, repeated evaluations with video recordings, and examination with different electrophysiological methods in appropriate cases help clarify the diagnosis. FMD is classified according to the phenomenology, as in other movement disorders, but different phenomenologies are not related to different etiologies or different pathophysiological mechanisms, in fact, similar neurobiological processes are involved in all types of FMD. Components such as increased attention to symptoms, different expectations and beliefs related to symptoms, and impaired sense of agency are the main concepts related to the neurobiological roots of FND.
There are many biological, psychological and social factors in etiology, such as underlying organic diseases, genetic characteristics, socioeconomic deprivations, personality disorders, and while these determine the susceptibility, they also play a role at every stage from the beginning of the process to its continuity. This disorder, which is frequently encountered in neurology and psychiatry clinics, often causes serious disability and has a poor prognosis as it is not treated effectively. Thus, timely diagnosis and appropriate treatment approach by a multidisciplinary team consisting of a neurologist, psychiatrist, psychologist, physiotherapist and nurse is crucial.

Keywords: Functional movement disorder, multidiciplinary treatment, positive neurological signs

References:

Stone, J., A. Carson, R. Duncan, R. Roberts, C. Warlow, C. Hibberd, ve ark., *Who is referred to neurology clinics?--the diagnoses made in 3781 new patients.* Clin Neurol Neurosurg, 2010. **112**(9): p. 747-51.

Park, J.E., *Clinical Characteristics of Functional Movement Disorders: A Clinic-based Study.* Tremor Other Hyperkinet Mov (N Y), 2018. **8**: p. 504.

Lidstone, S.C., R. Araujo, J. Stone, and B.R. Bloem, *Ten myths about functional neurological disorder.* Eur J Neurol, 2020. **27**(11): p. e62-e64.

Longitudinal Approach in Addiction Treatment
Challenges of Stabilization Period

Kültegin Ögel

The next stage after detoxification in addiction treatment is stabilization. The person has sought treatment and has been detoxified. However, the developments up to this point should be considered as the beginning of the treatment. During this period, the patient can easily relapse. Stabilization must be completed in order to move on to the rehabilitation and reintegration phase. Therefore, the stabilization phase is a very important part of the addiction treatment. The stabilization phase is a challenging period for the treatment team. In this panel discussion, the factors that the treatment team should do and pay attention to during the stabilization phase will bediscussed.

Next-Generation Computerized Risk Detection and Diagnosis Tool: RITA
RITA; Why and How? What Does a Multidimensional Approach Bring to Psychiatry?

Kültegin Ögel

Everyone working in the field of mental health has asked themselves "did I miss something in the story?" or "is there something I missed?". That's why there is now RITA. The Risk Assessment Questionnaire for Mental Illness (RITA) is a computerized risk screening tool developed for people over 18 years of age. RITA is a tool that identifies the risk of having 21 different mental health problems and the severity level of these problems. Validity and reliability studies were completed for all subscales. On the other hand, RITA also screens for risk factors that may affect the patient's mental health problem, such as personality traits, lifestyle, social support, family history, relationships and physical condition. Thus, a multidimensional assessment is possible. In this panel discussion, the benefits of multidimensional risk assessment for psychiatry will be discussed.

Psychotherapy in Patients With Schizophrenia in the Perinatal Period: “Efficacy, Safety and Therapy Options”

Özge Eriş Davut

The reproductive age in women with schizophrenia is a process that requires more attention and intervention than in healthy individuals. During the perinatal period, the likelihood of women experiencing a psychotic episode increases many times. In addition to the problems that may occur in the development of the mother-infant relationship, this process also carries the risk of infanticide and suicide.

The first-line treatment of psychosis is pharmacological. However, every woman in the psychotic process, as a potential mother, needs information and guidance on sexuality, sexually transmitted diseases, pregnancy, birth processes and baby care should be taken into consideration during the treatment processes.

Expectant mother with schizophrenia; may have difficulty accepting the pregnancy, correctly interpreting the developing physical changes, accepting prenatal care, discussing pregnancy-related concerns, establishing a reality-based bond with the baby, and grieving before the loss of custody.

In the panel, methods such as mother-baby units, couple therapy, cognitive behavioral therapy, and social rehabilitation therapy developed for this purpose and the studies in the literature about perinatal schizophrenia psychotherapy will be discussed.

Postpartum psychosis: A proposed treatment algorithm, Chaitra Jairaj, Gertrude Seneviratne, Veerle Bergink, Iris E Sommer and Paola Dazzan, https://doi.org/10.1177/02698811231181573
Miller, Laura J. Current Women's Health Reviews, Volume 6, Number 1, 2010, pp. 39-43(5) https://doi.org/10.2174/157340410790979770
Solari, H., E. Dickson, K., & Miller, L. (2018). Understanding and Treating Women with Schizophrenia during Pregnancy and Postpartum. Journal of Population Therapeutics and Clinical Pharmacology, 16(1).

Preventing Opioid Overdose Deaths: What can we do better?

John Strang

Abstract
Opioid drugs are widely consumed globally – as prescribed medications, in abuse patterns using pharmaceutical opioids, and also in non-medical abuse of heroin and other opioids. They can bring great relief and benefit, but they are not only associated with dependence and risk of abuse but also with an extremely high risk of death from opioid overdose. Globally, more than 150,000 people die annually from opioid overdose, a figure rising sharply in recent years, particularly in North American where mortality rate now exceeds 100,000 annually, and are also rising sharply in many other regions of the world.

As treating doctors and as contributors to national and local policy, we have a responsibility to examine clinical practice and public policy from three different standpoints:

Firstly, the importance of treatment and times of particular importance: Treatment (with medications such as methadone or buprenorphine) is protective against this risk of overdose death. Annual mortality rates of those using opioids vary according to the pattern of use and the age and sociodemographic circumstances of the individual, but is of the order of 1-2% annually. Treatment is protective against this risk of overdose death, reducing it to at least a quarter of the previous level. And, importantly, cessation of these treatments is associated with a transient return of increased mortality. However this risk of overdose death is not evenly distributed – there are times of major concentration of risk, notably following release from prison or discharge from hospital or moving back to community from protected residential rehabilitation. For former prisoners with a history of heroin use, one in 200 is dead within a fortnight of release. Whatever interventions or policies we consider, we must examine how they impact these dark periods, and how we might alter the events and the dangers of these periods of predictable danger.

Secondly, new technologies (apps and wearables): We need to include detection of overdose in the range of conditions which we expect to be incorporated into the apps and into the wearable devices on which we all increasingly rely. If my smart-watch can detect that I have had a fall, or that I have an unexpected cardiac irregularity, then could it not also, potentially, detect that I have had an overdose. The algorithm would be very similar – an initial alert to the wearer (to check it was not a false alarm), then an emergency message to a pre-nominated close family member or friend, and, if no response from these earlier levels, then a transmission of geo-location to emergency services. We will present early description of work in this area with regard to detection of opioid overdose.

Thirdly, the need to develop better, more easy-to-use emergency interventions: If an overdose emergency is identified, then what action should be taken? Over the last decade, many countries have introduced training for drug users themselves, as well as for family members and care workers, in the emergency interim management of the overdose crisis while awaiting the arrival of the ambulance, and this new approach often includes training in how to administer emergency interim naloxone, the opioid antidote, to reverse the opioid-induced respiratory depression. The talk will present an overview of the development of new concentrated naloxone nasal sprays, and also new work currently under way to explore the feasibility of a novel lyophilised buccal naloxone wafer/tablet which would combine broadly equivalent speed of onset with ultra-portable format to ensure constant carriage.

Alternative Treatments for Clozapine-Resistant Schizophrenia

Mesut Yıldız
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Clozapine is an atypical antipsychotic used especially in cases with treatment-resistant schizophrenia. Despite its high effectiveness, nearly % 40 of patients with treatment resistance fail to respond to clozapine. (1). Clozapine-resistant schizophrenia, also known as ultra-resistant schizophrenia is generally defined as the persistence of either positive or negative, cognitive symptoms of schizophrenia of at least moderate severity after an adequate trial of clozapine (2). Before thinking about other options, preventing clozapine resistance and optimizing clozapine treatment is especially important. In the case of clozapine resistance, treatment alternatives include switching to an antipsychotic other than clozapine, administering high doses of olanzapine, augmentation of clozapine with other agents, or somatic and cognitive treatments. Clozapine augmentation can be made with antipsychotics both with typical and atypical antipsychotics. Within antipsychotic agents, risperidone, amisulpride, and aripiprazole are the most chosen agents to decrease ongoing symptoms. Long-acting injectable antipsychotics can be very useful with clozapine to control symptoms and decrease non-compliance. Clozapine can also be augmented with antidepressants (fluoxetine, paroxetine, and duloxetine) which may decrease the overall symptoms. Mood stabilizers (lithium, valproic acid, and topiramate) are also used to augment clozapine for specific symptoms. Several psychiatric and non-psychiatric drugs and bioactive compounds are also used to cope with this difficult-to-treat condition (3). Other than psychopharmacological options, ECT is a very effective treatment option for clozapine resistance. Nearly 50 % of cases with clozapine resistance respond to electroconvulsive therapy (ECT). ECT is successfully used in the acute phase, but newer studies show that ECT can also be used in the maintenance phase to prevent relapses and hospitalizations (4). Although more work is needed on repetitive transcranial magnetic stimulation (rTMS), it can be effective in controlling treatment-resistant auditory hallucinations. Cognitive behavioral therapy may also be effective in a small portion of cases with clozapine resistance. Treatment resistance to clozapine is still an important and unsolved clinical entity. Despite clinical evidence and guideline suggestions, there is still uncertainty to effectively overcome this issue.

Keywords: Clozapine resistance, ultra-resistant schizophrenia, augmentation strategies

References:

[1] Siskind D, Siskind V, Kisely S. Clozapine response rates among people with treatment-resistant schizophrenia: data from a systematic review and meta-analysis. The Canadian Journal of Psychiatry, 2017; 62(11), 772-777.
[2] Howes OD, McCutcheon R, Agid O et al. Treatment-resistant schizophrenia: treatment response and resistance in psychosis (TRRIP) working group consensus guidelines on diagnosis and terminology. American Journal of Psychiatry, 2017; 174(3), 216-229.
[3] Chakrabarti S. Clozapine resistant schizophrenia: newer avenues of management. World Journal of Psychiatry,2021; 11(8), 429.
[4] Purohith AN, Chatorikar SA, Praharaj SK et al. Efficacy and safety of maintenance electroconvulsive therapy (M-ECT) in treatment-resistant schizophrenia: A case series. Asian Journal of Psychiatry, 2022; 73, 103132.

Neuropsychological Deficit in Sluggish Cognitive Tempo

Didem Ayyıldız

Sluggish cognitive tempo (SCT) is characterized by a range of cognitive and behavioral symptoms such as daydreaming, mental fogginess/confusion, and slowed behavior/thinking. According to the research that have gained momentum in recent years, the relationship between SCT and attention deficit hyperactivity disorder (ADHD) seems like a comorbidity of two disorders rather than different subtypes of the same disorder (***Becker, 2018).*** Although executive dysfunctions in areas such as response inhibition, working memory and response variability have been well studied in ADHD, these impairments could not be demonstrated in SCT. Research on signal detection (vigilance) and selective information processing shows impairments in orienting attention to external events associated with a deficit in selective or focused attention ***(Barkley, 2022***). Since SCT symptoms are highly correlated with internalizing symptoms, the contribution of SCT to deteriorations in problem solving, organization and emotional self-regulation areas especially in adult cases, might also be due to accompanying depression. (***Bauermeister, 2012, Jarrett, 2017***). Although the results regarding executive dysfunctions in SCT are limited, it is important in terms of revealing that SCT is a distinct dimension from the ADHD-inattentive subtype.

Becker, S. P., & Barkley, R. A. (2018). Sluggish cognitive tempo. *Oxford textbook of attention deficit hyperactivity disorder*, 147-153.
Barkley, R. A., Willcutt, E., & Jacobson, L. A. (2022). What is the cognitive deficit in sluggish cognitive tempo (SCT)? A review of neuropsychological research. *The ADHD Report*, *30*(2), 1-10.
Bauermeister, J. J., Barkley, R. A., Bauermeister, J. A., Martínez, J. V., & McBurnett, K. (2012). Validity of the sluggish cognitive tempo, inattention, and hyperactivity symptom dimensions: neuropsychological and psychosocial correlates. *Journal of abnormal child psychology*, *40*, 683-697.
Jarrett, M. A., Rapport, H. F., Rondon, A. T., & Becker, S. P. (2017). ADHD dimensions and sluggish cognitive tempo symptoms in relation to self-report and laboratory measures of neuropsychological functioning in college students. *Journal of Attention Disorders*, *21*(8), 673-683.

Emerging PTSD Interventions Based on Preclinical and Clinical Research - Implications for Optimizing Pharmacological and Psychotherapy Interventions

Lisa Burback, MD

Abstract
PTSD treatment is complex and often results in suboptimal outcomes, with devastating personal, economic, and societal consequences. Traditional treatments generally focus on fear, memory, and cognitive models of posttraumatic response, and clinical guidelines do not provide guidance on what works for specific individuals. However, research now reveals that PTSD is a systemic disorder with roots that predate the index trauma. Further, other contributing factors play an important role, including potential subtypes with different neurobiological profiles that may respond differently to specific interventions. Multiple interacting individual, systemic, and societal factors also impact treatment response, including system design, treatment accessibility and engagement, high dropout rates, trauma load and trauma type, comorbidity, avoidance, emotion dysregulation, dissociation, trauma-related shame, and moral injury.
Dr. Burback will review emerging PTSD interventions arising from preclinical and clinical research aimed at addressing these challenges. Going beyond traditional medications, these include secondary prevention strategies, pharmacological and non-pharmacological treatments, and augmentation strategies. Pharmacologic treatments include molecules designed to target specific stress-related pathways, including hormonal, endocannabinoid, and glutamate systems, and those related to pain, inflammation, and memory reconsolidation. These also include secondary prevention efforts, such those given within the critical first hours after trauma (i.e., the *Golden Hours)* and interventions in the first few weeks aimed at addressing early evolving trauma symptoms.
Psychotherapeutic approaches have also evolved, to optimize current established therapies, combine strategies, augment therapy with medications, and develop new trauma-focused and non-trauma focused behavioral approaches. Advances attempt to address many of the drivers of non-response and incorporate the latest understanding of trauma processing and memory reconsolidation. Themes include improving access and dropout rates, enhancing efficiency, individualizing treatment, creating multi-modal treatments, focusing on mind-body approaches, and creating interventions to address specific issues such as moral injury, spirituality, trauma-related shame, emotion and nervous system dysregulation, and relational dysfunction. Technology is also increasingly being used, not only to improve access to treatment, but also to address barriers such as avoidance, cognitive rigidity, or attention deficits. An example includes Multi-modal, Motion-assisted Memory Desensitization and Reconsolidation (3MDR), which combines treadmill walking within a personalized, immersive virtual reality environment and dual attention tasks from EMDR therapy. Ketamine, MDMA, and psychedelic assisted therapies will also be highlighted, including the basis for their potential to facilitate trauma processing, enhance trust, promote neuroplasticity, improve psychological flexibility and self-compassion, and impact other non-traditional targets in PTSD.
Finally, research regarding neuromodulation technologies for PTSD, such as Transcranial Magnetic Stimulation (rTMS), Transcranial Direct Current Stimulation (tDCS), and other nerve stimulation technologies, will be briefly reviewed, as well as neurofeedback and stellate ganglion blockade. In conclusion, this presentation will be a journey through current cutting edge research regarding PTSD care. These promising new interventions demonstrate the need to go beyond a monolithic view of PTSD, to reorganize care, and to individualize treatment to optimize outcomes.

References:

Burback, L., Brémault-Phillips, S., Nijdam, M.J., McFarlane, A. and Vermetten, E., 2023. Treatment of Posttraumatic Stress Disorder: A State-of-the-art Review. *Curr. Neuropharmacol*.
Nijdam, M.J., Vermetten, E. and McFarlane, A.C., 2023. Toward staging differentiation for posttraumatic stress disorder treatment. *Acta Psychiatrica Scandinavica*, *147*(1), pp.65-80.
van Elk, M. and Yaden, D.B., 2022. Pharmacological, neural, and psychological mechanisms underlying psychedelics: A critical review. *Neuroscience & Biobehavioral Reviews*, p.104793.