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ECP007

A revised biopsychosocial model for explaining complexity to mental disorders

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Abstract: The biopsychosocial model was first conceptualized by George L. Engel in 1977 in order to explain the contribution of biological, social and psychological factors in determining mental (and physical) illnesses. This model gained new attention in recent years: while many authors consider it as a complete framework, others highlight its clinical, scientific and theoretic vagueness. A revised biopsychosocial model is being proposed, including causal interactions within and between biological, social and psychological factors as the benchmarks of the complexity of mental disorders.

Disclosure of Interest: None Declared

ECP008

Are neuroinflammation and citokines possible novel targets for therapeutic treatments?

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Abstract: Schizophrenia is a serious mental illness with positive, negative and cognitive dysfunctions and a significant deterioration in psychosocial functioning. Interactions between genetic predisposition and environmental stressors at the early stages of life, and subsequently a molecular level neurodegeneration process are important in the development of schizophrenia. Current approaches suggest that cytokines-induced neuroinflammation might have a role in the development of several psychiatric disorders, including schizophrenia.

Disclosure of Interest: None Declared

ECP009

The exposome paradigm for severe mental disorders: is it useful for clinical practice?

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Abstract: In this presentation, I will explore how the exposome paradigm can be leveraged to advance clinical practice in psychiatry. Specifically, I will highlight the potential of cumulative environmental risk scores to predict outcomes in severe mental disorders, such as the exposome score for schizophrenia (ES-SCZ).

Numerous socio-environmental factors have been linked to mental disorders, including childhood adversities, stressful life events, substance use, obstetric complications during pregnancy and childbirth, and urban living. Environmental factors do not exist in isolation; they form complex networks of interrelated and interactive elements. In this regard, the exposome represents the totality of an individual's environmental exposures throughout their lifetime. The exposome framework introduces a holistic approach to embrace this complexity and a theoretical framework to investigate the poly-gene and poly-environment etiology of psychiatric disorders.

Guided by the exposome framework, we have recently estimated the ES-SCZ, a cumulative environmental exposure score for schizophrenia, including cannabis use, winter-birth, hearing impairment, bullying, and five domains of childhood adversities (emotional and physical neglect, along with emotional, sexual, and physical abuse). The ES-SCZ successfully differentiated individuals with schizophrenia, accounting for 28% of the variance in an independent case-control sample. Subsequently, we have tested the risk stratification properties and the predictive performance of the exposome score for schizophrenia in the general population. The ES-SCZ had strong discriminative performance for schizophrenia (AUC = 0.84) and was associated with the degree of psychosis risk in the general population. Finally, we tested the performance of ES-SCZ for dissecting the functional and symptomatic outcome heterogeneity in patients with psychosis in four different cohorts (EUGEI, GROUP, Athens FEP, and HAMLETT-OPHELIA). ES-SCZ was associated with poor overall functioning and cognitive impairment at baseline and follow-up visits. ES-SCZ was also temporally associated with poor symptomatic improvement from baseline to follow-up assessments, particularly the negative symptom dimension. Furthermore, models that included the polygenic risk score for schizophrenia and clinical features showed that the relationship between ES-SCZ and functional outcomes cannot be explained by genetic or clinical risk factors alone.

Overall, our findings demonstrate the potential benefits of the exposome score for schizophrenia, which can be integrated for early detection, outcome prognostication, clinical staging, and risk stratification in the future.

Disclosure of Interest: None Declared

ECP010

Should cannabis be legalised?

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Abstract: Legalizing cannabis can yield significant benefits for public mental health by fostering harm reduction, promoting medical access, and mitigating societal stigma. While concerns about misuse exist, a well-regulated cannabis policy can outweigh these risks and provide a balanced approach to mental health promotion. 1. Harm Reduction through Regulation Prohibition often drives cannabis use into unregulated markets, where the lack of quality control increases risks of contamination with harmful substances. Legalization allows governments to regulate cannabis production, ensuring product safety and controlled potency. This can reduce

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incidents of adverse reactions, particularly those exacerbated by high-potency strains or toxic additives. A regulated market also discourages illicit activity, reducing exposure to dangerous drugs often sold alongside cannabis in black markets, 2. Promoting Medical Access and Mental Health Treatment Legalization enhances access to cannabis for therapeutic purposes, particularly for mental health conditions such as chronic pain and opens the door to explore the potential benefor for patents with anxiety and post-traumatic stress disorder (PTSD), and. Studies indicate that cannabinoids can alleviate symptoms of stress and anxiety when used responsibly and under medical supervision. By integrating cannabis into healthcare systems, individuals struggling with mental health disorders can benefit from a natural and potentially less addictive alternative to pharmaceuticals like opioids or benzodiazepines, which carry significant risks of dependency. 3. Addressing Stigma and Encouraging Open Dialogue Legalization reduces societal stigma associated with cannabis use, enabling more individuals to openly discuss their experiences and seek help for misuse if needed. Public health campaigns can then focus on education about responsible use, mental health implications, and support systems. Decriminalizing cannabis also reduces the disproportionate criminalization of marginalized groups, fostering a more inclusive and equitable approach to public health. 4. Potential to Reduce Alcohol and Opioid Use Research has suggested that legal cannabis availability is associated with reductions in alcohol and opioid consumption, substances that are more harmful to both physical and mental health. By providing a less harmful alternative for relaxation or pain management, cannabis legalization could mitigate the societal burden of these substances, including addiction and overdose crises. Conclusion While cannabis legalization requires careful regulation to mitigate risks like overuse or dependence, its potential benefits for public mental health are substantial. By reducing harm, enhancing medical access, and promoting a more informed and equitable societal approach, legalization represents a forward-thinking public health policy that prioritizes well-being over punitive enforcement.

Disclosure of Interest: None Declared

ECP011

Does Cannabis Legalization Contribute to an Increase in the Incidence and Prevalence of Psychotic Disorders?

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Abstract: Cannabis legalisation has undergone a rapid global transformation, with varying policy approaches and public health implications across different geographic areas and social contexts. Several arguments have been proposed to support cannabis legalisation, ranging from control of the quality and potency of the market products, harm reduction, addressing the black market activities, reducing crime, and economic benefit. However, cannabis use has been associated with public health concerns, and it has

been established as the most preventable risk factor for psychotic disorders.

This work aims to dissect the key arguments supporting cannabis legalisation through the following objectives: 1) reviewing the relationship between cannabis legalisation and the incidence and prevalence of psychotic disorders in countries where cannabis has been legalised, as well as changes in incidence rates over time in those countries where legalization is currently under debate; 2) examining the relationship between cannabis use and psychopathological outcomes using a syndemic approach; and 3) presenting original data from the epidemiological branch of the EC-1 study, aiming to identify risk factors for psychopathology, violence, and aggression in South London.

Disclosure of Interest: None Declared

ECP012

Marrying up new trends in clinical research: AI and -omics

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Abstract: Artificial intelligence (AI) and -omics techniques (genomics, proteomics, metabolomics) represent two rapidly evolving fields that are increasingly intersecting to transform clinical research and healthcare.

AI, aiming to mimic human intelligence through computational modelling, possesses extraordinary capabilities for big data analysis. -Omics, offering quantifiable and dynamic readouts of the molecular state of the subject, can generate large databases covering hundreds to thousands of molecules with complex relationships. Combining AI-driven insights with the wealth of data generated by genomics, transcriptomics, proteomics, and metabolomics can help uncovering complex biological networks, with the potential to revolutionize our understanding of disease mechanisms, improve patient stratification, and optimize therapeutic interventions.

In this presentation, the concepts of AI and -omics and their combined application to clinical research will be discussed, summarizing the strengths and limitations of these approaches. Studies leveraging AI across various -omics domains will be presented. Key advances, ongoing challenges, and future perspectives in this rapidly evolving field will be debated.

While still in the early stages, the synergistic partnership between metabolomics and AI represents an exciting frontier that holds great promises for groundbreaking advancements in clinical research and human health, paving the way toward a new era of precision medicine.

Disclosure of Interest: None Declared