

SYMPOSIA (3 HRS)



S05 - Clinical Importance and Definition of the Childhood Risk Syndrome: Early Detection and Prevention in Children Born to a Parent Affected by Schizophrenia, Bipolar Disorder, or Recurrent Major Depressive Disorder

Thursday, 12 September

14:45 - 17:45 (3 hrs)

Michel Maziade*, MD; Elsa Gilbert, PhD; Anne-Marie Gagné, PhD; Nicolas Berthelot, PhD; Alexandre Bureau, PhD; Jeffrey Meyer, MD as the discussant

Supported by the Research Committee

CanMEDS Roles:

1. Medical Expert
2. Scholar
3. Professional

At the end of this session, participants will be able to: 1) Learn about the most recent discoveries in genetically high-risk children about risk endophenotypes and sub-clinical symptoms; 2) Be able to identify how the above risk indicators cluster together to form a childhood risk syndrome and may be used to stage the status of risk; and 3) Learn how this body of data can translate into short-term specific surveillance and interventions.

The lack of attention for children born to a parent with major psychiatric disorder is strikingly inconsistent with available scientific evidence and their extreme developmental risk (Maziade, *New Eng J Med* 2017; Arango, *The Lancet Psychiatry* 2018). Around 4% of the population of the G7 nations — more than 35 million adults — is affected by schizophrenia, bipolar disorder, or recurrent major depression. Consequently, an estimated 8 to 10 million children or adolescents in these countries have an affected parent. These children can no longer be regarded as a marginal population. They have a 15 to 20 times higher risk of developing the disorder affecting their parent, and 50% of them develop nonpsychotic nonaffective psychiatric disorders during childhood or adolescence that hinder their development and warrant clinical services.

This symposium endorsed by the Canadian Psychiatric Association Research Committee brings empirical evidence on four facts: 1) Genetically high-risk children and adolescents carry many indicators of brain dysfunction (or risk endophenotypes) displayed by adult patients; 2) These early risk indicators accumulate to form risk clusters; 3) This clustering trajectory is a predictor of a later transition to illness; and 4) The progressive clustering distinguishes among high-risk children and siblings and may help define risk status. Each presenter will describe one component of the childhood risk syndrome: cognitive impairment, genomic vulnerability, electroretinography anomalies, childhood trauma, and longitudinal process of risk clustering. The symposium presents the short- and mid-term implications for clinical practice; the need for practice guidelines for these children, in terms of focus on the whole family; screening of children most at risk; longitudinal surveillance; and pharmacotherapy cautions.

S11 - Building Virtual and Online Collaborative Mental Health Care Networks in Canada: The Canadian Project ECHO Experience

Friday, 13 September

14:45 - 17:45 (3 hrs)

Allison Crawford*, MD, FRCPC, PhD; Sanjeev Sockalingam, MD, FRCPC, MPHE; Eva Serhal, MBA, PhD(c); Carol Ward, MD, FRCPC; Matthew Burkey, MD, FRCPC, PhD, MPH; Simon Dubreucq, MD, FRCPC, MSc; Gabrielle Chicoine, MSc Nursing, PhD(c)

CanMEDS Roles:

1. Collaborator
2. Communicator
3. Medical Expert

At the end of this session, participants will be able to: 1) Explain the project ECHO model and how it may be used as a foundation for building capacity in mental health in primary care across Canada; 2) Describe recent research in implementation science and how it can be used for the implementation of ECHO projects; and 3) Discuss approaches used nationally to evaluate impacts of the ECHO model within mental health and related international findings of ECHO.



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Due to the maldistribution of specialized mental health care across Canada's geographically dispersed population, a high proportion of complex mental illnesses are addressed within primary care settings. Primary care providers (PCPs), particularly in underserved areas, report feeling under-resourced and isolated due to limited mental health training and access to psychiatric support. The Extension for Community Healthcare Outcomes (ECHO) model is well suited for Canada's health care needs, as it aims to build overall system capacity and efficiency in the health care system. The ECHO model leverages video-conferencing technology to build PCP capacity in the evidence-based treatment of chronic illness through the creation of an online community of practice, didactic presentations, and case-based learning. This proposed session engages participants in interactive discussions around the applicability of the ECHO model for their own unique contexts, by considering relevant literature and reflecting on experiences with implementation, capacity building, community engagement and evaluation. Presenters from three distinct mental-health-focused ECHO projects in Ontario, British Columbia, and Quebec will share their experiences with implementing and running an ECHO. The session will first introduce the ECHO model, describing the gaps in specialized care it proposes to solve. This will be followed by an overview of key considerations for program implementation. Finally, presenters will share approaches to evaluating the impact of the ECHO model within their respective provinces and discuss opportunities for further national collaborations in evaluation. Symposium participants will obtain key resources and an understanding of how the ECHO model can apply to their local context.

S23 - Post-Traumatic Stress Disorder and Related Comorbidities: A Biological Perspective

Saturday, 14 September

14:45 - 17:45 (3 hrs)

Martin Katzman*, BSc, MD, FRCPC; Irvin Epstein, MD, FRCPC; Brigitte van Heerden, MBChB, FC Psych (SA); Tia Sternat, MPsy, RP

CanMEDS Roles:

1. Medical Expert
2. Communicator
3. Health Advocate

At the end of this session, participants will be able to: 1) Describe the neurobiology of post-traumatic stress disorder (PTSD) as it relates to the adrenal stress system; 2) Identify significant mental health and medical comorbidities and describe how they impact PTSD prognosis; and 3) Evaluate the potential outcomes of trauma, as they relate to suicidality, self-assertiveness, and sleep disturbances.

Post-Traumatic Stress Disorder (PTSD) can present following an individual's exposure to an overwhelming or unexpected traumatic event. The most common forms of trauma include unexpected death of a loved one, sexual assault, and seeing someone badly injured or killed. The consequences and chronicity of symptoms can be varied and are governed by one's vulnerability, resilience, and past exposures and experiences. Recent studies have shown that sleep dysregulation is predictive of the development and severity of PTSD. Moreover, passive behaviours, delayed response rates, and low assertiveness have been shown to be an outcome of traumatic sexual experiences. These are all significant factors that may impact the development of serious psychiatric comorbidities and the endogenous endocrine and inflammatory system. The continuity of unrelieved stress may ultimately contribute to higher rates of self-harm and suicide attempts. As a result, there has been a movement in research to discover and implement novel treatments for this chronic condition, including glutamatergic and cannabinoid agents. Speakers will review the complex anatomy associated with PTSD, with a focus on the function of the amygdala and neuroendocrine system, specifically in relation to overactivation of the adrenal stress system. There will be a discussion of negative outcomes of PTSD, including low assertiveness and the generation of parasuicidal ideation. The presentation will include a review of PTSD and co-occurring psychiatric and medical conditions, which ultimately impact the accuracy of diagnosis, targeted treatment choices, and long-term prognosis.

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S25 - Recent Advances in Neuromodulation Treatment for Treatment-Resistant Depression

Saturday, 14 September

14:45 - 17:45 (3 hrs)

Rajamannar Ramasubbu*, MD, FRCPC, MSc; Jeff Daskalakis, MD, FRCPC; Fidel Vila-Rodriguez, MD; Jonathan Downar, MD, PhD

CanMEDS Roles:

1. Scholar
2. Medical Expert
3. Professional

At the end of this session, participants will be able to: 1) Learn about the current status of invasive and non-invasive neuromodulation treatments for resistant or persistent depression; 2) Learn the differences between repetitive transcranial magnetic stimulation (rTMS) and theta burst stimulation; and 3) Learn about the effectiveness of magnetic seizure therapy and the optimization of subgenual deep brain stimulation outcomes.

Treatment-resistant depression (TRD) is a highly prevalent and debilitating condition. Approximately 10% to 30% of patients with major depression are partially or totally resistant to conventional treatments. Recently, different modalities of targeted invasive and non-invasive neuromodulation therapies are actively being investigated as potential treatment options for resistant depression. This symposium focuses on an evidence-based path forward for three important modalities of neuromodulation treatment for resistant depression. Magnetic seizure therapy is emerging as a potential alternative to electroconvulsive treatment. The efficacy and safety data on this novel treatment will be presented. Repetitive transcranial magnetic stimulation (rTMS) is currently entering a phase of rapid progress towards more accessible, cost-effective protocols, with higher remission rates for major depression. A review of high-volume rTMS protocols, better patient selection, and focused targeting of specific symptom clusters will be presented. To address the importance of another novel TMS neuromodulation treatment, results will be presented from a pivotal non-inferiority trial comparing the efficacy of regular rTMS and novel intermittent theta burst stimulation (iTBS) in the treatment of resistant depression. Deep brain stimulation (DBS) of the subcallosal cingulate region is an invasive but promising treatment for very severe resistant depression. This field faces a major setback as two recent sham-controlled DBS trials failed. Based on the lessons learned from the failed trials, a recent study addressing the knowledge gap on optimal stimulation parameters, predictive biomarkers, and cognitive-behavioural therapy augmentation will be presented.