

# Early psychosis and developmental disorders

**Feb 5 2021**

**EPI-SET ECHO presentation**

**camh**



# Learning objectives

**1. Provide brief overview of the link between psychosis and developmental delays**

**2. Discuss recognition and approach in clinical care:**

- Learning disorder/ intellectual disability
- ASDs
- ADHD

# Developmental delays and psychosis

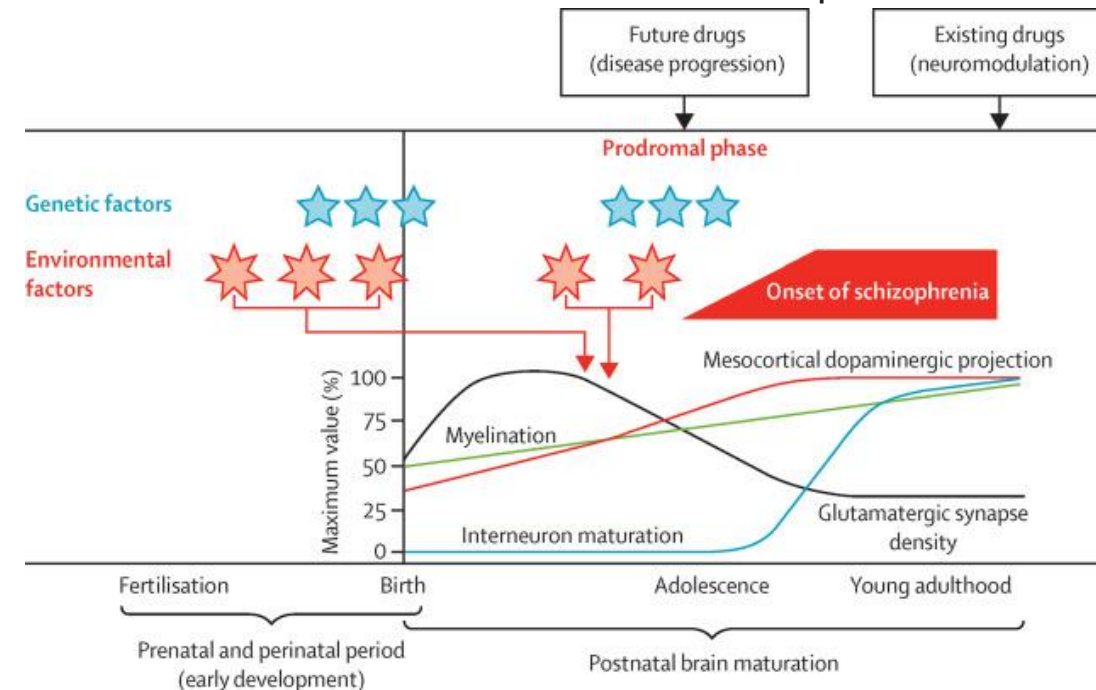
## - Neurodevelopmental hypothesis of schizophrenia

A disruption of brain development during early life underlies the later emergence of psychosis during adulthood.

- pre/perinatal complications, neuroimaging findings, minor facial anomalies, subtle neuromotor and speech delays, solitariness, and lower educational scores in childhood

## - Developmental Risk Factor Model

Neurodevelopmental risk factors interact with adverse social and drug risk factors, most of which act during development. Thus, deficits in neuro- and social cognition, secondary to subtle abnormalities in neural networks, set some children on a trajectory of increasing difficulties, and a cascade of increasing deviance from normal development can occur.



30 Years on: How the Neurodevelopmental Hypothesis of Schizophrenia Morphed Into the Developmental Risk Factor Model of Psychosis

Robin M Murray, Vishal Bhavsar, Giada Tripoli, Oliver Howes

Schizophrenia Bulletin, Volume 43, Issue 6, November 2017, Pages 1190–1196,

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# Cognitive deficits

Cognitive deficits are linked to higher risk for psychosis

- **Intellectual developmental disorder** / intellectual disability (learning disorder)

Deficit in intellectual functioning IQ <70

Deficits in adaptive behaviours

Onset < age 18

Clinically: reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience

## -**Specific deficits**

Processing speed: pace at which you take in information, make sense of it, and begin to respond. 'how long it takes to get stuff done'

Executive functioning: variety of cognitive skills that are important for carrying out adaptive, goal-directed behaviours eg working memory.

Social cognition: perception, processing, and interpretation of social information

Important for outcome

# Clinical practice EPI

## Assessment

Neuropsychological assessment / psychoeducational testing

## Accommodation

Structure context, predictable environment

Reduced rate of speaking

Assisting in time management

Using both verbal and visual cues

Break down / task - analyze skills into steps

Model targeted skills, then provide practice opportunities

Systematically fade prompts to promote independence

## Advocacy

Social, school, employment. Not “lazy”.

Barriers to health care / chronic health conditions

## Acute psychosis:

### STRESS REDUCTION

Physical health

Family / Caregivers

Medication treatment

Supports

# Autism Spectrum Disorders (ASD)

Autism Spectrum Disorders (ASD) linked to psychosis  
5x increased risk

ASD is a developmental disorder:

- difficulties with social interaction and communication
- restricted and repetitive behavior

Co-occurrence of psychosis symptoms

Overlap negative symptoms psychosis / ASD

Diagnostic challenge

Screening:

Social Responsiveness Scale adult self-report version (SRS-2) - Short Form

Autism Questionnaire – self report, age 16+, 16 items, free

# Clinical practice EPI

Structure/ routine, predictable environment

Assisting in overview, (time) management

Break down task - analyze

Keep language concrete

Avoid sensory overload

Using both verbal and visual cues

Calming strategies - interests

Specific cognitive deficits eg processing speed, ToM

Adapt to situation, eg safety plan

Specific treatments:

Behavioral intervention strategies eg social communication skill development

Occupational Therapy, Support for employment, Speech Therapy

Anxiety

**Acute psychosis:**

## **STRESS REDUCTION**

Medication treatment

Physical health

**Family / Caregivers**

Supports

# Attention deficit hyperactivity disorder

Hyperactivity, impulsiveness

Inattentiveness

Multiple domains

Early age onset

Link to psychosis:

- Co-occurrence
- Substance use

Screening:

Adult ADHD Self-report Scale ([www.caddra.ca/wp-content/uploads/ASRS.pdf](http://www.caddra.ca/wp-content/uploads/ASRS.pdf))



# Clinical practice EPI

- Non-medication + medication interventions

External structure

Limit distractions

Break smaller chunks

Time management

Coping skills; emotion regulation

Interest driven (vs reward driven)

Fidget toys, walks

Other: self-esteem, substance use, behavioural problems, sleep problems

Resources for clinicians:

[www.caddac.ca](http://www.caddac.ca)

[www.caddra.ca](http://www.caddra.ca)

[www.chadd.org](http://www.chadd.org) (US)

Medication treatment: atomoxetine or stimulants when psychosis in remission

# Summary

Developmental delays linked to psychotic disorders

Specific neuropsychological deficits – general

Developmental disorders higher risk for psychosis

ASDs

ADHD

Common strategies – specific strategies

**Thank You**

**camh**

Questions?



<b>Perception</b>		
Visual	Using the visual system to perceive and interpret what is seen in the surrounding environment	Identifying structural visual features in faces or objects
Auditory	Using the auditory system to perceive and interpret what is heard in the surrounding environment	Distinguishing between the tone or pitch of voices
<b>Nonsocial cognition</b>		
Speed of processing	Responding quickly and accurately when performing relatively simple perceptual, motor or cognitive tasks	Being able to rapidly add up a set of numbers or count out change
Verbal learning and memory	Ability to acquire, store and retrieve verbal information for more than a few minutes	Remembering a list of items to purchase at the supermarket, or remembering what you read hours ago
Visuospatial learning and memory	Ability to acquire, store and retrieve information about objects and spatial locations for more than a few minutes	Remembering where you placed something in a closet
Working memory	Ability to hold and manipulate information "online" in a temporary store	Retaining and dialing a phone number you were just told
Attention/Vigilance	Ability to respond to targets, and not respond to non-targets, over a period of time	Focusing attention while receiving instructions or reading a book
Reasoning and problem solving	Ability to apply and shift strategies effectively to find optimal solutions to problems	Figuring out how to get to an important appointment when your car breaks down
<b>Social cognition</b>		
Emotion processing	Ability to effectively identify emotions (e.g., facial expression) in others and to manage one's own emotions	Being able to identify from your boss' face whether he/she is angry at you
Social perception	Ability to identify social roles, rules and context from non-verbal cues including body language, prosody and social schema knowledge	Figuring out the relationship between two people based on a brief sample of conversation
Attributional bias/style	The way in which individuals explain the causes and make sense of social events or interactions	Jumping to the conclusion that you are in danger when you feel fearful
Mentalizing	Ability to represent the mental states of others and make inferences about their intentions and beliefs	Being able to take another person's perspective during a conversation