RECOGNIZING AND RESPONDING TO SIGNS OF EARLY PSYCHOSIS

EARLY PSYCHOSIS CARE CENTER – MISSOURI

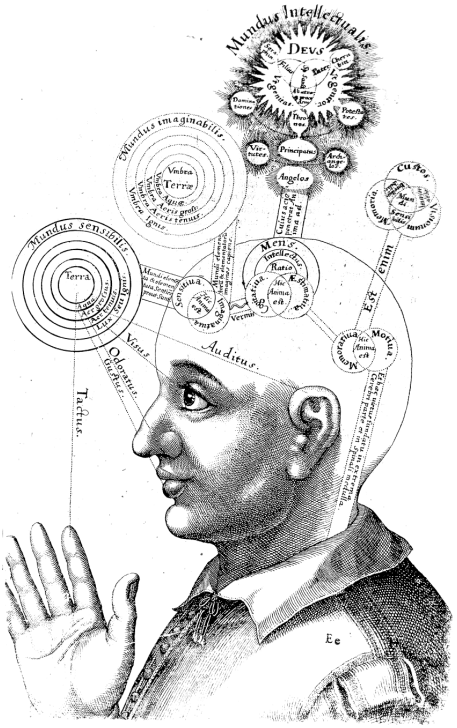
REBECCA N. PRESTON, PHD

Building blocks of psychosis spectrum disorders
Establishing the threshold- evaluate psychosis
Importance of early identification and intervention;

MYTHS	FACTS
People experiencing psychotic symptoms are dangerous.	People experiencing psychotic symptoms are not likely to deliberately harm others.
It can't happen to you.	Psychosis can happen to anyone.
People with psychosis are psychopaths.	There is a difference between psychosis and psychopathy.
People with psychotic disorders are crazy.	People with psychotic disorders are not crazy.
People with psychosis have split personalities.	People with psychosis do not have split personalities– that's DID.
People with psychosis can't lead normal lives.	There are many people living with psychosis who lead productive lives.

VS.

A BRIEF HISTORY



Jablensky, 2010; Maatz, 2015; Image credit, Robert Fudd.

19th century - European psychiatrists began describing disorders that often progressed to chronic deterioration that **typically affected young people**

Bénédict Morel (France; 1809-1973) - referred to such cases as *démence précoce*

Thomas Smith Clouston (Scotland; 1840-1915) - coined the term "adolescent insanity"

Karl Ludwig Kahlbaum (Germany; 1828-1899) - described the catatonic syndrome

Ewald Hecker (Germany; 1843-1909) - described hebephrenia

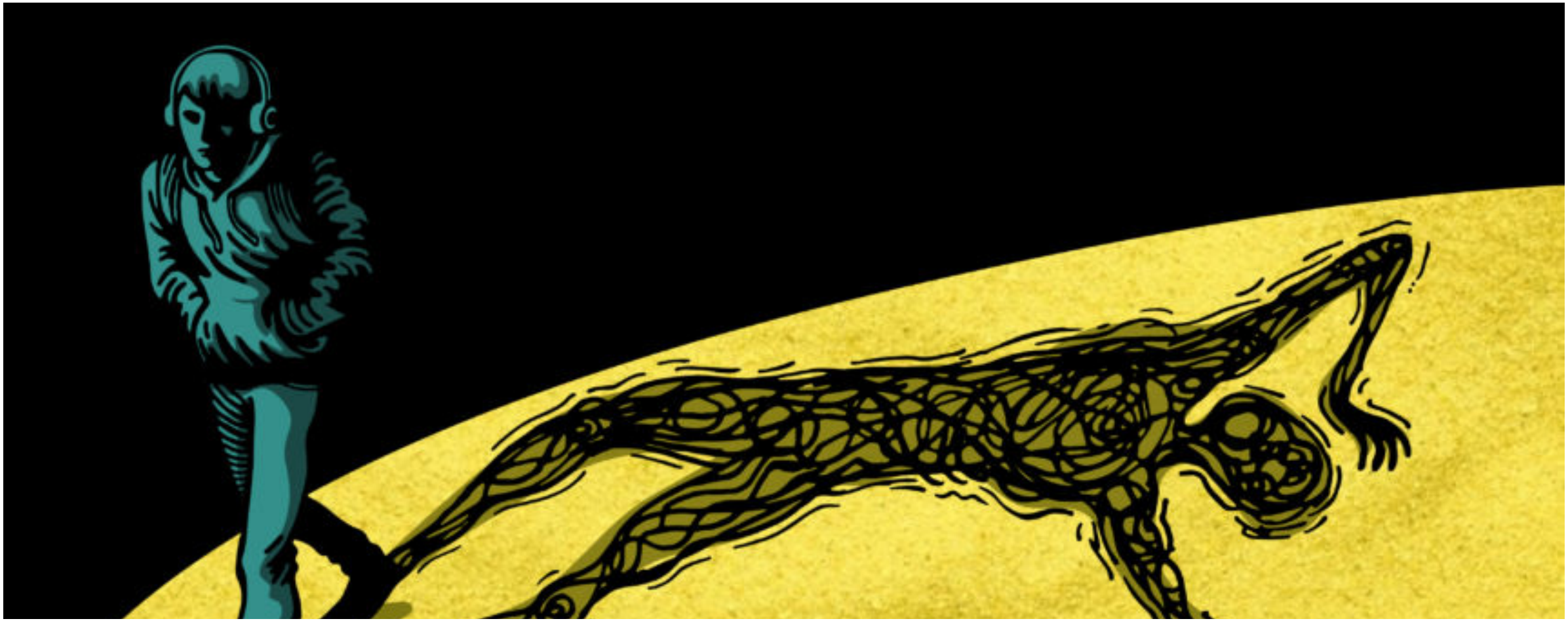
Emil Kraepelin (Germany; 1856-1926) - coined dementia praecox

- A steady cognitive and social decline during adolescence
- At the core were cognitive deficits—a general decay of mental efficiency and executive dysfunction or a loss of mastery over volitional action

Eugen Bleuler (Switzerland; 1857-1939) - introduced term schizophrenia to replace dementia praecox

- Referred to the schism between thought and affect in patients
- Basic symptoms – those which are necessarily present in any case of schizophrenia
  - Disturbance in affect, cognition, thought and speech derailment (loosening of associations), decreased social interaction (autism), and volition (ambivalence)
- Accessory Symptoms – delusions and hallucinations

WHAT IS PSYCHOSIS



WHAT IS PSYCHOSIS?

Psychosis is a **temporary** state marked by a ***loss of contact with reality***

MILD → **MODERATE** → **SEVERE**

Noticeable No distress Infrequent / rare No impact on functioning	Some distress Increasing frequency Affects functioning Able to question reality	Distressful Frequent Significantly affects functioning Real
Normative, non-clinical experiences	**Clinical High Risk**	**Full Psychosis**

CAUSES OF PSYCHOSIS

Temporary causes of psychosis

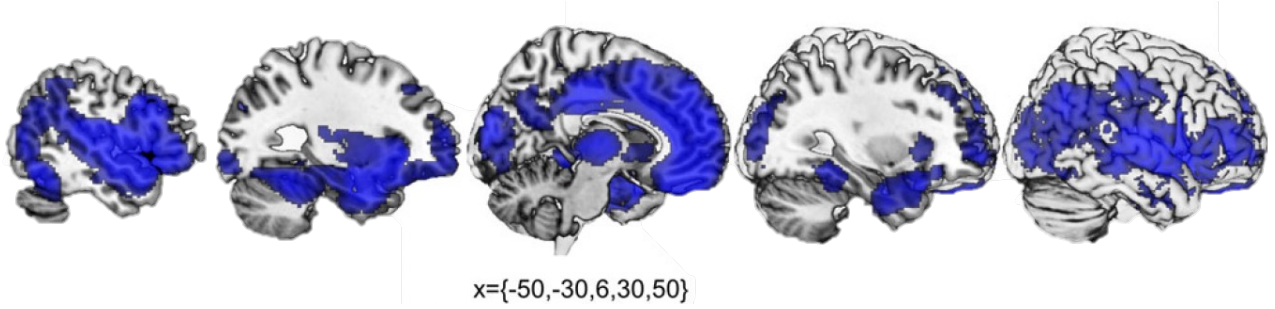
- Going through a traumatic event
- Under extreme stress
- Sleep deprived
- Taking certain prescription medications
- Using substances (such as hallucinogens like LSD)

Other potential causes of psychosis

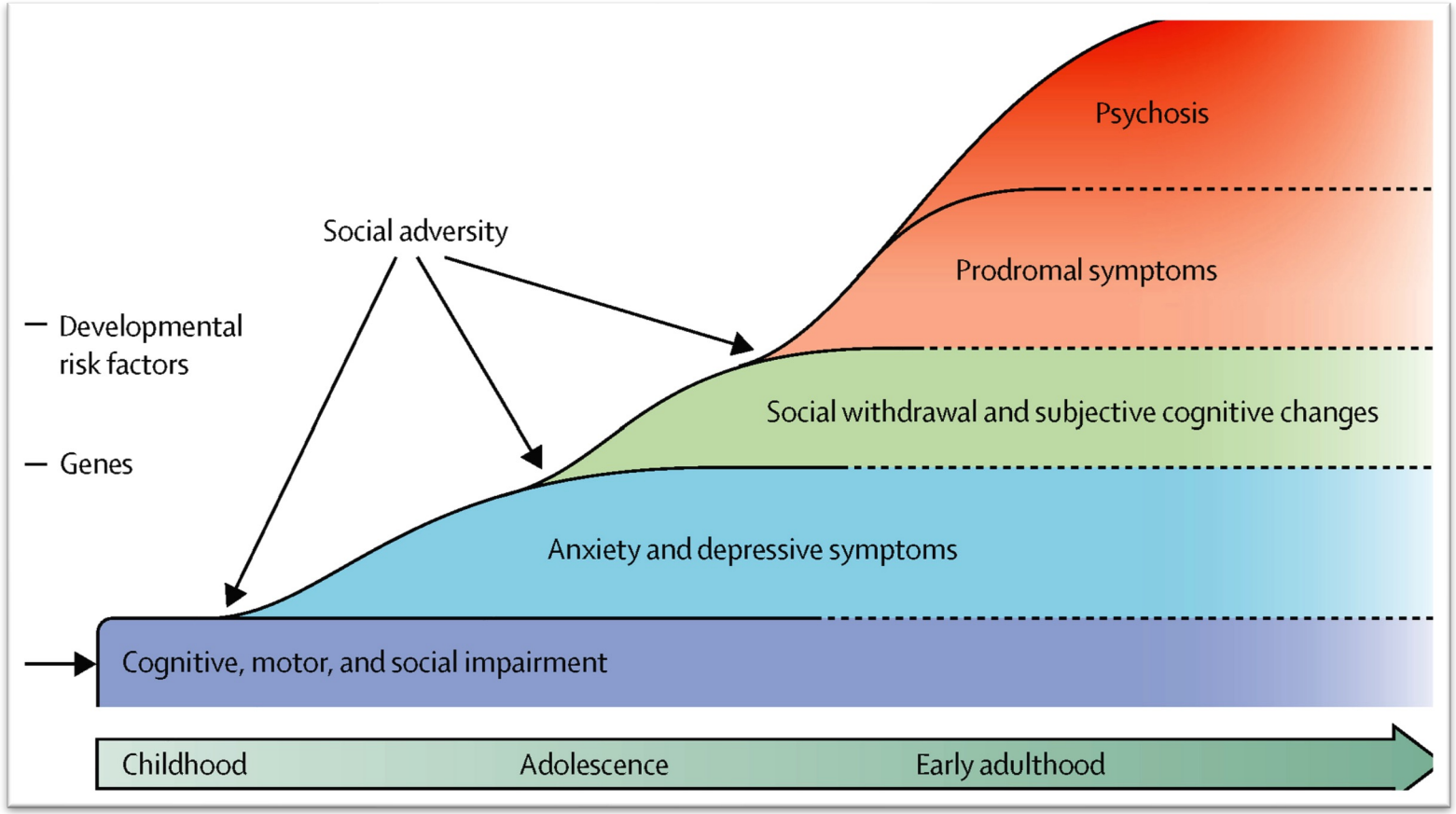
- Traumatic brain injury
- Neurological conditions like epilepsy
- Neurodegenerative conditions like Alzheimer's disease or Parkinson's Disease
- Other medical conditions such as HIV, brain tumor, stroke

Brain abnormalities correlated with psychotic disorders

↓ GMV in prefrontal, superior, and medial temporal regions



Sullivan et al, 2020; NIMH. "RAISE Questions and Answers."; Perälä et al 2007; Picó-Pérez et al, 2022.



The trajectory to schizophrenia showing the evolution of symptoms and the main risk factors

Kempton et al. 2015; Lieberman & First, 2018; Howes & Murray 2014.

SUBSYNDROMAL / ATTENUATED PSYCHOSIS

- Foundational research from the past two decades has elucidated the presence of the clinical high risk (CHR) state, or the period prior to the onset of psychosis [1, 2]. This prodromal phase of illness has been referred to as CHR, attenuated psychosis syndrome (APS), and ultra high risk (UHR) and has been studied internationally as a critical time window for early identification and intervention [2,3,4]. For the purposes of this review, we will refer to this period as the CHR phase and will refer to individuals as CHR to denote this risk for psychosis. Adapted from findings in schizophrenia cohorts, attenuated positive symptoms such as unusual thought content, suspiciousness, and perceptual abnormalities are now understood to exist on a clinical spectrum of severity, and are used as primary metrics to determine if an individual has crossed the "threshold" from CHR to a full-blown psychotic disorder [3, 5, 6]. In the literature, this is widely referred to as "conversion" or "transition" to psychosis, denoted as CHR-C (converted) versus CHR-NC (non-converted) in this review.
- Meta-analyses provide estimates of conversion rates between 20 and 30% within 2–3 years among those that meet criteria for CHR [4]. A recent meta-analysis by Salazar de Pablo et al. [7] revealed similar conversion estimates of 25% in a span of 2–3 years, additionally suggesting that risk for conversion to psychosis increases with time. While findings in conversion rates have been comparable over the past several decades, they remain heterogenous, with many studies using different methodologies, definitions, and controlling for different confounders

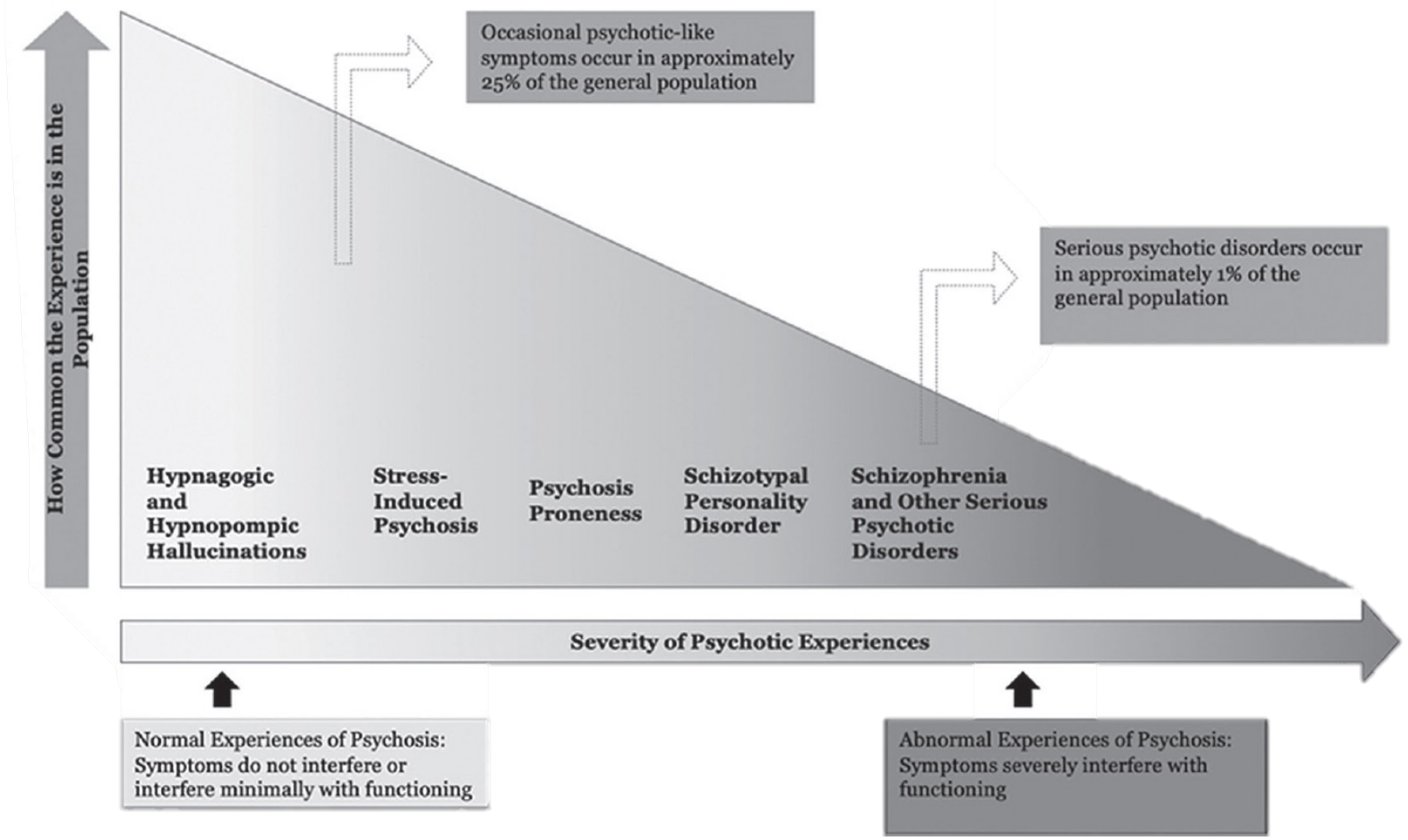
SUBSYNDROMAL / ATTENUATED PSYCHOSIS

- early intervention may reduce the risk of conversion or minimize the impairment associated with psychotic disorders (Addington et al., 2019). Conversion rates vary depending on the criteria used to identify the CHR state, but a study found that overall risk of conversion within 3 years is 22% (Fusar-Poli et al., 2020). A meta-analysis found that preventive interventions in those at CHR is associated with up to a 54% reduction in overall risk of onset after 12 months (van der Gaag et al., 2013). CHR have significant social and role functioning impairments (Addington et al., 2008; Carrión et al., 2013; Hui et al., 2013), have high rates of psychiatric comorbidity including anxiety and depression (Fusar-Poli et al., 2014; Granö et al., 2014a; Kelleher et al., 2012), and report lower subjective quality of life (Granö et al., 2014b; Hui et al., 2013; Ruhrmann et al., 2008), even among those who do not develop psychosis. Therefore, understanding treatment engagement is of paramount importance given that evidence suggests that this is more than just a risk group. Overall, with the emergence of attenuated positive and negative symptoms as well as the high rates of comorbid psychiatric disorders, this period can be very distressing and functionally impairing, highlighting the need for mental health services for this population. Thus, identifying the potential mechanisms underlying intent to seek mental health treatment in this population can offer important insight into help-seeking behaviors and potentially improve rates of service utilization. Our findings point to a potential mechanism that can be further tested in future studies.

SCHIZOPHRENIA *VS* PSYCHOSIS

- Psychosis is the hallmark feature of schizophrenia spectrum and other psychotic disorders, as well a co-occurring aspect to many mood and substance use disorders
- Schizophrenia is a chronic psychotic disorder, pervasive, often devastating, associated with severe deficits in cognition, behavior, and social functioning
- The incidence of first-time episode psychosis ~50 in100,000; the incidence of schizophrenia ~15 in 100,000 people
- The peak age of onset: Males teens to mid-20s, Females teens to late-20's.
- Earlier onset correlates with poorer outcomes, although early intervention correlates with better results.
- Psychosis is extremely uncommon in children.
- rather than being a harbinger of schizophrenia, psychotic symptoms in childhood and adolescence often accompany other psychiatric conditions (major depression, bipolar disorder, dissociative states, etc.)

SEVERITY OF PSYCHOTIC EXPERIENCES



Features that Distinguish Subthreshold fromThreshold Positive Symptoms (and ONSET)

- *Degree of conviction/meaning*
- *Degree of distress/bother*
- *Degree of interference with life (acting on, talking about, impairment from)*
- *Frequency, Duration, ("Amount" of) Preoccupation*

Evaluating Psychosis – Getting the Description with the 5 W's

- *Establish the parameters and context*
- *Who? (… do you know who?)*
- *When? (…did it start? Is this a change from how you used to be?*

How often does it happen? or How much of the day? How long does it last? What is the longest time it lasted?)

- *Where? (…does it happen? Anywhere else?...At other places?)*
- *Why? (…does this happen? or How do you explain it*

Evaluating Psychosis – Getting the Description with the 5 W's

- *What? (usually the starting point)…*
  - *Tell me about that.*
  - *In what way?*
  - *What do you mean?*

Evaluating Psychosis – Establishing the Threshold

- Degree of conviction/meaning (delusions and hallucinations have compelling sense of reality)
- Do you think this is real? How convinced are you/how real does it seem on a scale of 0-100, where 100 is 100% convinced it is real, 0 is not at all convinced?
- How do you explain it?
- Do you ever think it could just be your imagination?
- For perceptual experiences: Can you hear/see it as clearly as you can hear/see me? Can you make out what it is? Are you awake at the time?

Evaluating Psychosis: "Reality" Checks

- External corroboration – from a collateral, but also through probing participant:
- Delusions
- General: Have you talked to anyone about this? What did they say? Do other people notice this?
- Somatic: Have you talked to a doctor about this? What did s/he say?
- Persecutory - "bullying" at school: Did you talk to a teacher/principal about this? What did s/he say? Did the person get in any kind of trouble for it?
- Persecutory - wary of surroundings/safety: Do you think you need to be more alert/aware than others of your (age/sex/race)? Do you know other kids your age?
- Religious: Were you raised with these beliefs? Do you believe them more strongly than others (family/members of religious org) of your faith? (or Are others as devout as you?)
- Grandiose: Have you received any awards or special recognition for this? Are there other people out there as good as you in this?

Evaluating Psychosis – Establishing the Threshold

- Degree of interference with life (acting on, talking about, impairment from)
- Do you ever act on this thought/experience?
- Does having this thought/experience ever cause you to do anything differently?
- Degree of distress/bother
- Does this bother you?
- How much does it bother you, on a scale of 0-10 where 0 is 'no bother' and 10 is 'extremely serious bother'?

Evaluating Psychosis: "Reality" Checks

- External corroboration
  - Hallucinations
    - Is anyone else around when you hear (se
      - If so, do they hear it too?
      - If not, have you told others about it? Wh
    - Do you hear/see it now?
    - Auditory/visual – (e.g., ringing in ears, "fl
- No one question/answer will nail it significance
- Note that if current/past substance use should also be asked – Did this l [high/drunk]?

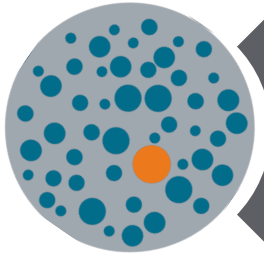
Evaluating Psychosis: Establishing the Onset

- Onset of threshold psychosis is critical for eligibility and differential diagnosis; related to establishing the threshold…
- Determine a point of threshold, then work way backwards…
  - when did you first notice it at this level of conviction? Bother? interference?

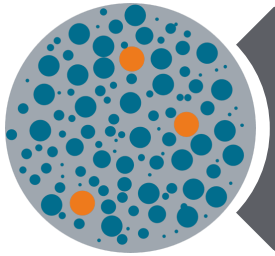
PSYCHOSIS FACTS & STATS

1 in 6 people report having a psychotic-like experience at some point during their life

1 in 5 presenting for treatment at primary care centers report experiencing **one or more** psychotic symptoms



1 in 50 people worldwide diagnosed with a psychotic disorder (1.5% to 3.5%; avg ~2%)



First episode psychosis (FEP) affects **3 in 100** people

1 in 3 people experiencing FEP will develop a **schizophrenia spectrum disorder**

2 of 3 people will experience a single episode of psychosis or be diagnosed with another disorder

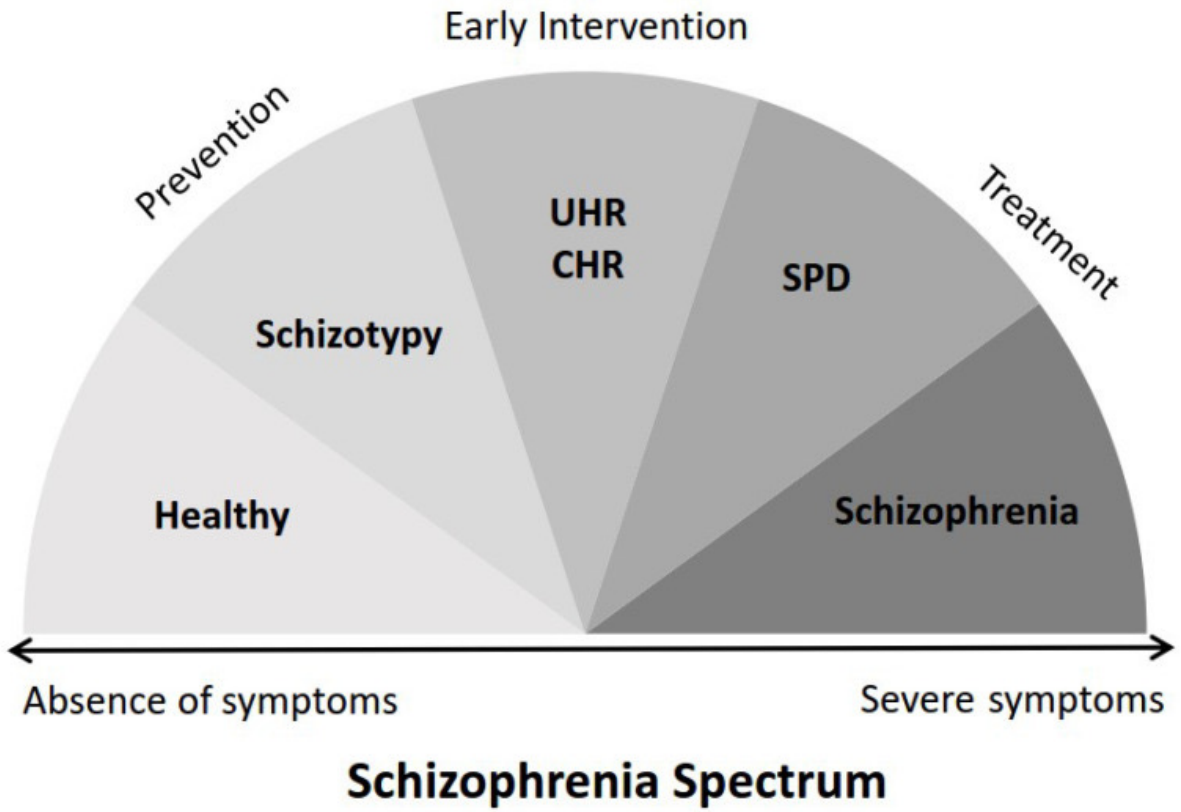
Sullivan et al, 2020; NIMH. "RAISE Questions and Answers."; Perälä et al 2007; Addington et al., 2015; Heinssen, Goldstein, & Azrin, 2014; McGrath, Saha, Chant, et al., 2008

ows prominent difficulties in abstraction. Thought content is notable for hallucinations (typically auditory nature, as with adults). Delusions (especially ideas of reference) are the most frequently encountered ychotic symptoms.[21] Other components of thought disorder (eg, perseveration, a lost sense of identity, verty of content, illogical thinking, circumstantiality, audible thoughts) and Schneiderian first-rank mptoms may also be present.[23] Moreover, these children rarely have insight into the significance of their mptoms, and, consequently, their judgment and impulse control are usually compromised (particularly ound self-destructive or aggressive impulses).[20]

Psychotic symptoms have been associated with, or are secondary to, a wide variety of medical disorders as well. Psychosis may develop in response to central nervous system lesions, as a consequence of medical illness, or after traumatic injury or drug use. Recently, reports[17] have linked a particularly severe form of new-onset psychosis—often associated with insomnia, catatonia, and autonomic instability—to antibodies against the glycine-binding NR_1 subunits of the anti–*N*-methyl-d-aspartate (NMDA) receptor. Overall, studies from the adult literature show that about 3% of new-onset presentations of psychosis can be attributed to a medical condition.[13,18] Therefore, before making a diagnosis of a primary psychotic disorder, secondary causes should be ruled out by a thorough—but not indiscriminate—medical workup.

Unlike adults, children with psychosis rarely demonstrate waxy flexibility or become catatonic.[14] On the other hand, they can be emotionally reactive or agitated.[19] The majority of children with childhood-onset schizophrenia often exhibit "soft" neurologic signs, including primitive reflexes, abnormal stereognosis, 2-point discrimination, and dysdiadochokinesia (impaired rapid alternating movements).[24] Affected youth may manifest either a decreased or increased rate of eye blinking, as well as paroxysmal saccadic eye movements (inability to follow an object with smooth eye movements).[25]

SUBSYNDROMAL / ATTENUATED PSYCHOSIS



Realization that consistent clusters of symptoms emerge before patients present with psychosis or are hospitalized has led to the concept of at-risk mental state (ARMS) or ultra high risk (UHR), or clinical high risk (CHR)

Individuals have some psychotic symptoms but do not (yet) fulfill the full criteria for psychosis - or schizophrenia spectrum disorders

Characterized by attenuated positive symptoms, negative symptoms, and functional impairment

The common thread: patients are defined by attenuated psychotic symptoms with the outcome defined as "conversion" or "transition" to full psychosis—not necessarily schizophrenia

Risk of transition to full psychosis is variable 22% in one year; 29% within two years, 36% within three years.

Cannon et al, 2015; Fusar-Poli et al, 2012; Kahn, 2020; Woods et al, 2001; Zouraraki, 2023.

LOOK BEYOND THE SURFACE

POSITIVE SYMPTOMS – SOMETHING IS ADDED

Hallucinations
Delusions (false beliefs)
Disorganized thoughts or speech

NEGATIVE SYMPTOMS – SOMETHING IS MISSING

Apathy
Reduced socializing
Restricted facial expression
Change in rate of speech

COGNTIVE SYMPTOMS – SOMETHING CHANGED

Difficulties with attention, concentration, memory, planning, and organization

POSITIVE SYMPTOMS

POSITIVE SYMPTOMS – SOMETHING IS ADDED

NEGATIVE SYMPTOMS – SOMETHING IS MISSING

COGNTIVE SYMPTOMS – SOMETHING CHANGED

Unusual Thinking

- Confusion about what is real and what is imaginary (reality testing)
- Ideas of reference
- Suspiciousness
- Delusions

Perceptual Disturbances

- Hallucinations
  - Auditory & Visual
  - Olfactory / gustatory
- Increased sensitivity to sound or light

Disorganized Behavior

- Smiling, laughing talking to self; preoccupied with or responding to internal stimuli
- Strange, bizarre, inappropriate, purposeless, or ambivalent behavior or movement
- Random intermittent agitation for no clear reason

Formal Thought Disorder

- Impaired capacity to sustain coherent discourse, and occurs in the patient's written or spoken language
- Circumstantial and tangential
- **Flight of ideas**

TYPES OF HALLUCINATIONS

- *Auditory (most common)*
- *• Visual*
- *• Tactile/Somatic*
- *• Olfactory*
- *• Gustatory*

TYPES OF DELUSIONS

- *• Strongly held belief that others in the same*
- *community do not believe*
- *• Most common delusions*
- *• Paranoid and persecutory*
- *• Delusions of reference*
- *• e.g., people are looking at me, people are*
- *talking about me*
- *• Others*
- *• Grandiose*
- *• Somatic*
- *• Religious*
- *• Nihilistic*

•**Delusions.** These are beliefs that seem strange to most people and are easy to prove wrong.– In the intereset of time, I'll have a supplemental slide at the end for reference listing the major types of delusions

•. Types of delusions include:

•**Persecutory delusions.** The feeling someone is after you or that you're being stalked, hunted, framed, or tricked.

•**Referential delusions.** When a person believes that public forms of communication, like song lyrics or a gesture from a TV host, are a special message just for them.

•**Somatic delusions.** These center on the body. The person thinks they have a terrible illness or health problem like worms under the skin or damage from cosmic rays.

•**Erotomanic delusions.** A person might be convinced a celebrity is in love with them or that their partner is cheating. Or they might think people they're not attracted to are pursuing them.

•**Religious delusions.** Someone might think they have a special relationship with a deity or that they're possessed by a demon.

•**Grandiose delusions.** They consider themselves a major figure on the world stage, like an entertainer or a politician.

NEGATIVE SYMPTOMS

POSITIVE SYMPTOMS – SOMETHING IS ADDED

NEGATIVE SYMPTOMS – SOMETHING IS MISSING

COGNTIVE SYMPTOMS – SOMETHING CHANGED

Blunted Affect
- Decreased facial and vocal expressions
- Poor eye contact
- Minimal use of gesture

Alogia
- Short of monosyllable answers to questions
- Avoids communication
- Uses few words

Avolution
- Emotional withdrawal
- Apathy
- Poor grooming and hygiene
- Decreased involvement with work or school

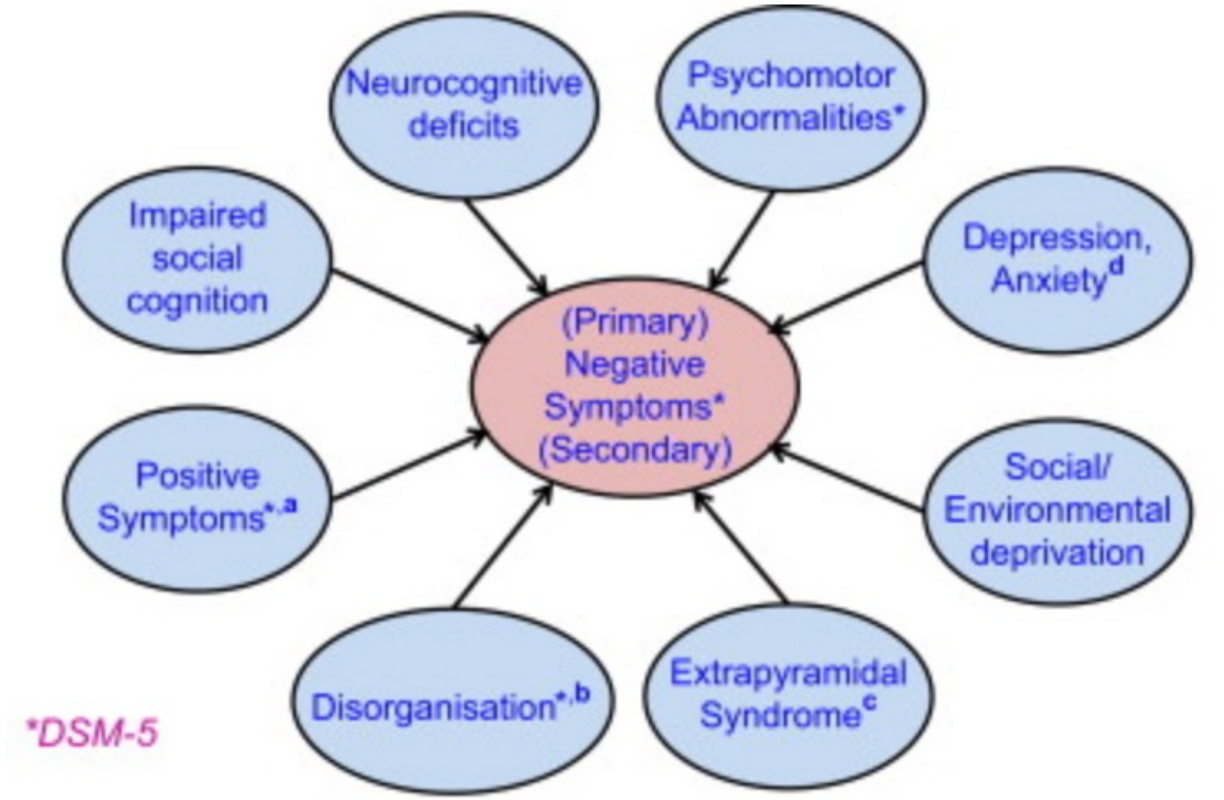
Anhedonia
- Difficulty / inability to anticipate pleasurable events
- Few leisure activities
- Lack of interest in sex

Asociality
- Few friends
- Poor relationships with people
- Lack of motivation for social relationships
- Decreased social interaction

NEGATIVE SYMPTOMS

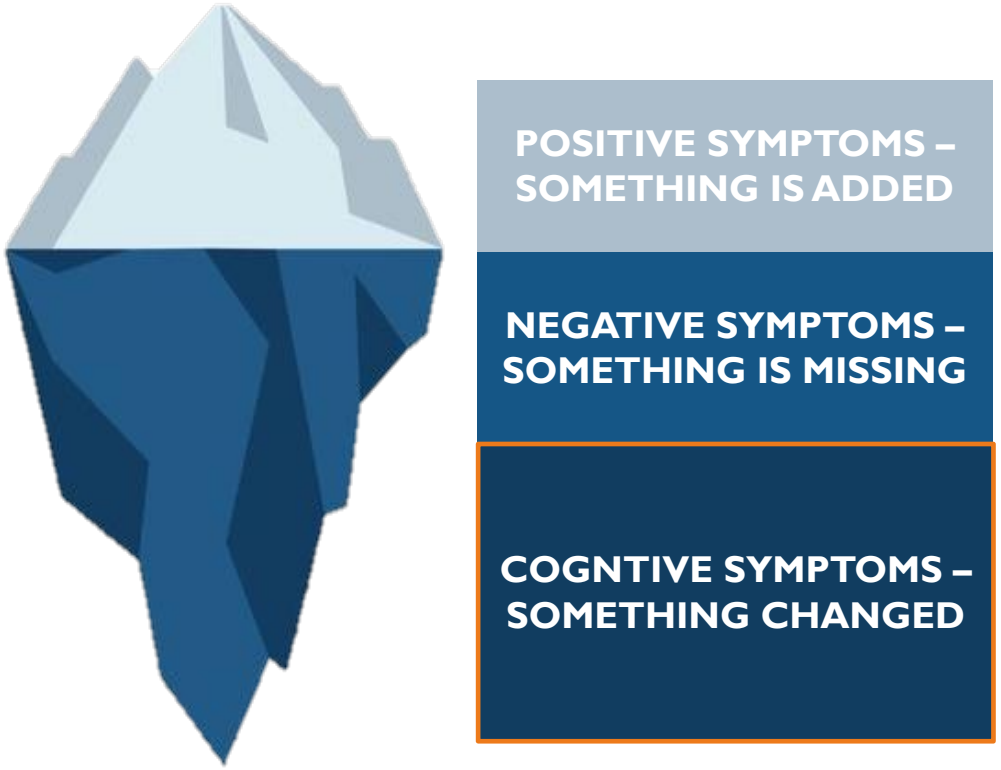
- Recognized as an independent symptom domain, distinct from positive symptoms, neurocognition, and social cognition, negative symptoms are responsible for a **large part of the long-term morbidity**
- Can **be difficult to recognize** – clinical expression is less obvious than that of positive symptoms
- Can be masked by positive symptoms and can coexist with or be **confused with affective symptoms or cognitive impairment**
- Negative symptom severity has been linked to worse outcomes in several areas of functioning:
  - Occupational and academic performance
  - Household involvement
  - Social interactions
  - Formation of lasting relationships
  - Participation in activities
  - Quality of life

INDUCTION AND AGGRAVATION OF NEGATIVE SYMPTOMS



Millan et al 2014

COGNITIVE SYMPTOMS



Cognition

Mental processes involved in attention, learning, remembering, using knowledge, and using both verbal and nonverbal abilities

Individuals experiencing psychosis may experience problems in:

- Attention and vigilance
- Memory
- Reasoning and thinking abstractly
- Learning
- Speed of information processing
- Verbal and visual learning
- Social cognition

Cognitive abilities are the best predictor of long-term functional outcomes and are largely unresponsive to pharmacological therapy

SOCIAL COGNITION

- A further domain of poorly-treated impairment in schizophrenia is social cognition
- which refers to mechanisms for understanding and interpreting the mental states, gestures, behaviours and facial expressions of others, or the understanding of verbal and non-verbal modes of communication (Section 2.3) (Adolphs, 2009, Bora et al., 2009, Brown et al., 2012, Brüne, 2005, Fitch et al., 2010, Frith and Frith, 2012, Kalkstein et al., 2010, Millan and Bales, 2013, Rushworth et al., 2013).
- By analogy to "neurocognitive impairment", deficits in social cognition are essentially refractory to existing antipsychotics
- This is unfortunate since impaired social cognition has grave repercussions for functional outcome and may drive other symptoms, including NS (Section 2.2) (Brüne, 2005, Foussias et al., 2014, Green et al., 2008, Green et al., 2012, Hoe et al., 2012, Millan et al., 2012).
- The NS of schizophrenia, which encompass blunted affect, poverty of speech (alogia), amotivation, anticipatory anhedonia and asociality, are likewise poorly-treated and severely interfere with the functional status of patients

EARLY WARNING SIGNS

Early signs can appear 1-3 years before full threshold psychosis

Early or first episode psychosis (FEP) is when a person first shows signs of beginning to lose contact with reality

Feeling like eye or mind is playing tricks on them

Feeling like their brain isn't working

Seeing or hearing things that aren't real

Hearing knocking, tapping, whispers, clicking, or name being called

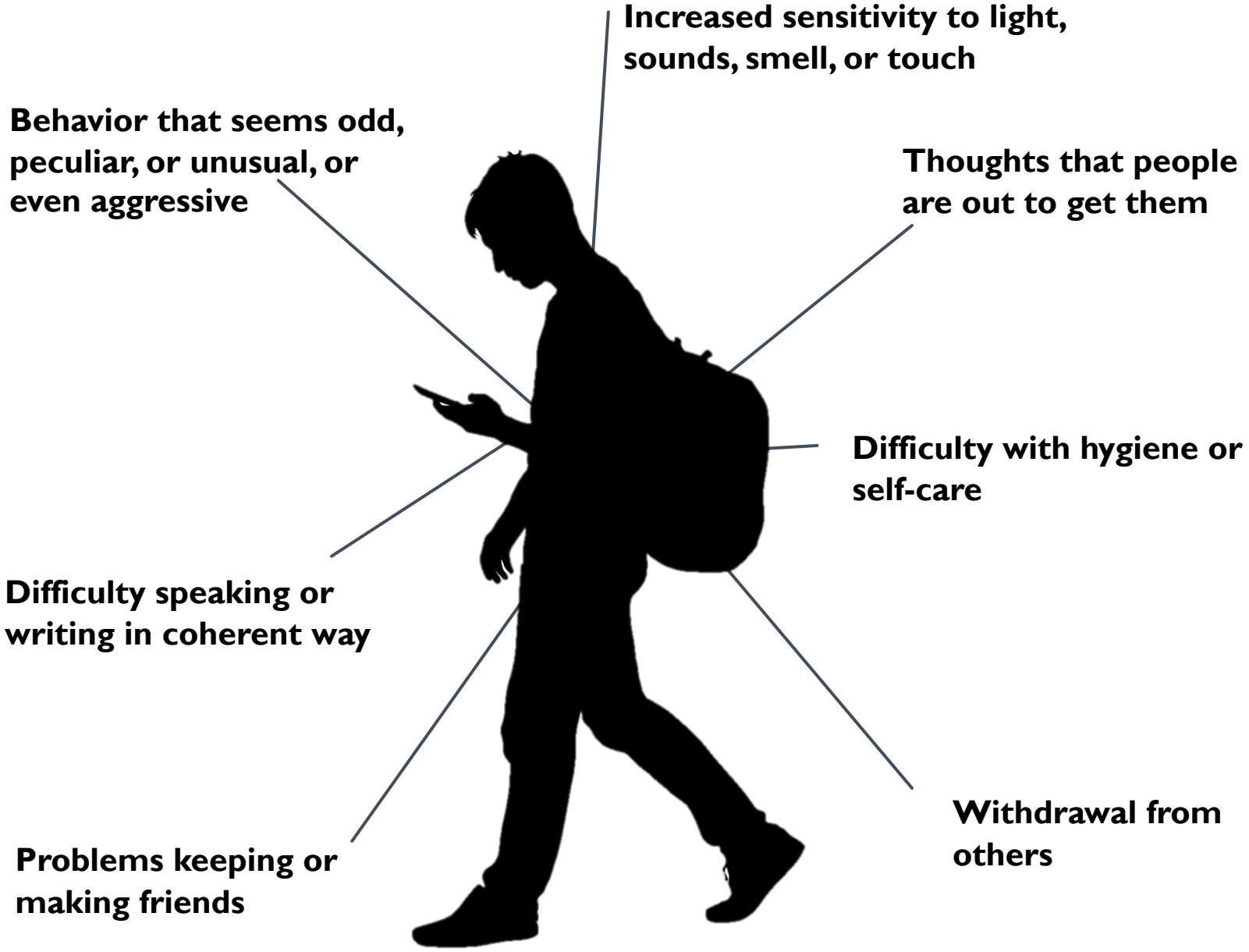
Confusing imagination, dreams, or TV with reality

Confused thoughts, difficulty focusing, or managing tasks

Vivid and outlandish thoughts and ideas

EARLY WARNING SIGNS

Additional symptoms and changes in behavior an individual may experience when experiencing first episode psychosis



SEVERITY OF PSYCHOTIC EXPERIENCES & THE F-A-C-T-S

F	**Functional Decline**
A	**Atypical Perceptions**
C	**Cognitive Difficulties**
T	**Thought Disturbance**
S	**Speech / Behavior (Disorganized)**

https://www.psychosisscreening.org/

The First Episode of Psychosis: A Guide for Young People and Their Families." Beth Broussard and Michael T. Compton. Oxford University Press, New York. Copyright 2021 Psychosisscreening.org

IT'S TRICKY!

- Psychotic symptoms in children and adolescents need to be differentiated from other nonpsychotic phenomena
- Language deficits and cognitive deficits related to DD/ID may suggest psychosis in nonpsychotic individuals
- Nonspecific symptoms, such as anxiety, distractibility, and irritability, may precede a psychotic break and confuse diagnosis

Keep in mind

- Hallucinations and delusions are usually thought to establish the diagnosis of psychosis
- Children with active fantasy lives can often misperceive their thoughts as actual events and can insist that a thought or a dream actually occurred, which would seem to meet the definition of hallucination and delusion

KUBKOO/ISTOCK/GETTY IMAGES

- Both historically, and based on current DSM and ICD nosology, psychotic syndromes are narrowly defined, with diagnoses based on overt symptoms, characteristic patterns and course of illness, and clear evidence of impairment (e.g, schizophrenia).
- a primary goal of early psychosis programs is to improve the prognosis of severe psychotic illnesses, most individuals enrolled in these programs have brief or transient psychosis, and do not go on to develop schizophrenia or a psychotic mood disorder
- distinguishing between psychotic-like experiences, psychotic symptoms and specific psychotic disorders is key to effective treatment. Therefore, we will first address the differential diagnosis of disorders that can be accompanied by psychotic symptoms, with the primarily focus on the diagnosis and treatment of early onset schizophrenia

Sunshine & McClellan, 2023

- Early onset sz before age 18
-

- diagnosing a child with psychosis based solely on subjective symptom reports, without other corroborating clinical evidence, increases the risk of inaccurate diagnosis and exposure to unnecessary treatments (particularly antipsychotic medications). In child psychiatry, the controversies regarding “pediatric bipolar disorder” provide some cautionary lessons

- that distinguishing between psychotic-like experiences, psychotic symptoms and specific psychotic disorders is key to effective treatment. Therefore, we will first address the differential diagnosis of disorders that can be accompanied by psychotic symptoms, with the primarily focus on the diagnosis and treatment of early onset schizophrenia.

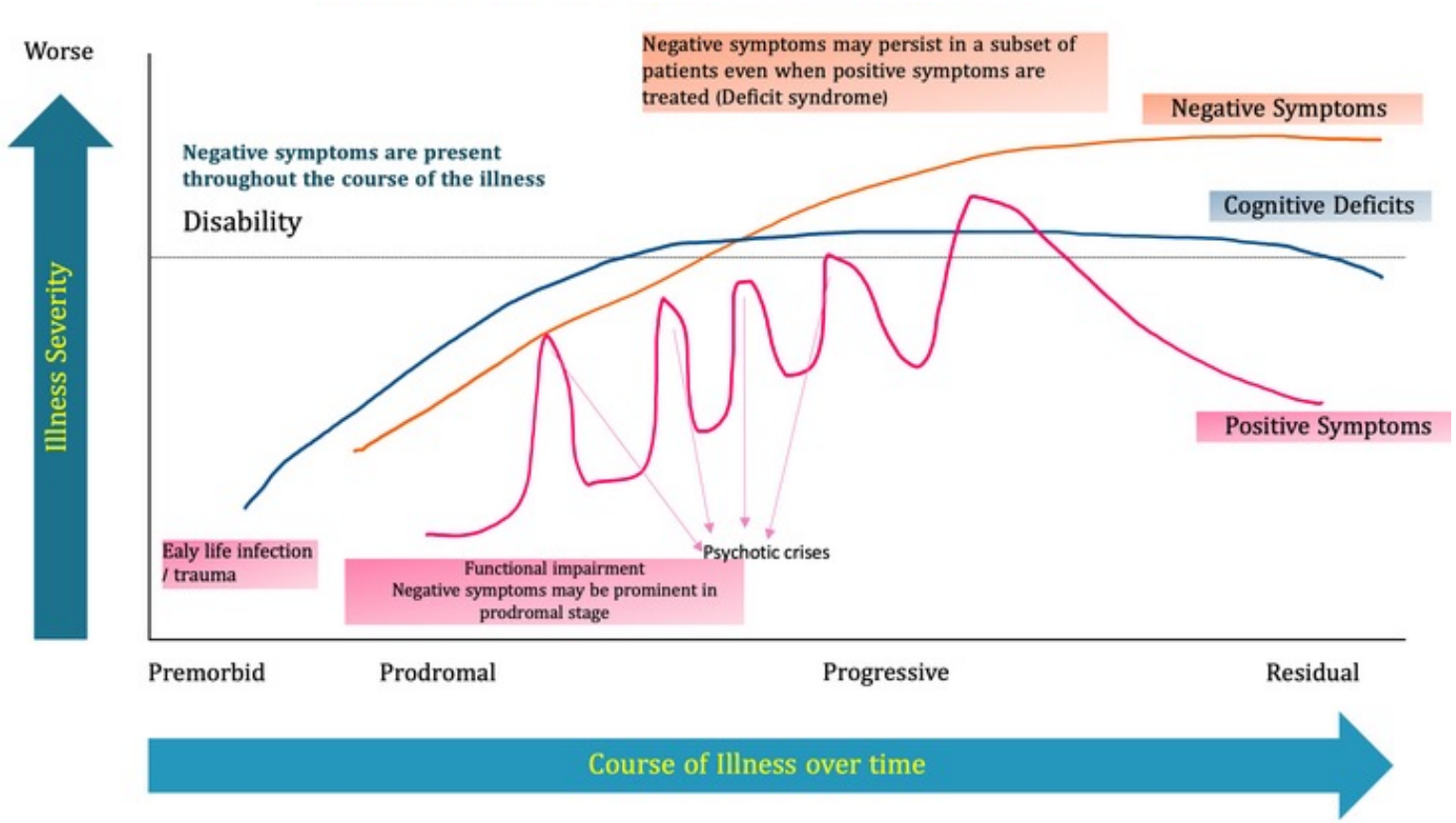
- *Challenges in Identifying and Treating FEP*

Disturbances occurring early in brain development contribute to the pathogenesis of schizophrenia.

Research across genetics,neuroimaging, brain developmentand neurochemical functioning,neurology, and pathogenesismechanisms contribute to thisunderstanding of the developmentof schizophrenia

- *Differential diagnosis for our population is complex for many reasons*
- *• Young people*
- *• developing brains/individuals*
- *• disorders may not be ”fully declared”*
- *• Diagnoses are inherently cross-sectional (at admission) but the diagnostic system is inherently longitudinal*
- *• Some disorders literally require a certain amount of time to pass (e.g., schizophrenia)*
- *• As we strive to identify people earlier, there may be less clarity (although we may also alter the progression!)*
- *• Imprecise or unknown historical information (potential lack of collateral information)*
- *• Comorbid symptoms and disorders*
- *• Ability/willingness of person to disclose or describe symptoms*
- *• Stigma and fear*

COURSE OF SYMPTOMS



Adapted from Correll, 2013.

CLINICAL COURSE?

DIAGNOSTIC STABILITY OVER TIME- THE DEGREE TO WHICH DIAG IS DONFIRMED AT SUBSEQUENT ASSESSMENTS

- Although evidence of diagnostic stability is one of the key criteria for establishing the validity of most first episode psychosis diagnoses,[6] some nosologic categories (eg, schizophreniform disorder or psychosis not otherwise specified) are formulated a priori on expected diagnostic uncertainty at the onset of psychosis or inadequate information available for specific diagnosis. Such diagnostic categories are intended as "place-holders." Frequent diagnostic shifts in these disorders are to be expected. Interestingly, we found that about one-third of initial cases of schizophreniform disorder or psychosis not otherwise specified retained their initial diagnosis, suggesting some ongoing clinical uncertainty or clinician reluctance to specify a category. To overcome these issues and better understand the clinical relevance of our findings, we reported a high diagnostic stability across schizophrenia spectrum psychoses (0.93), as well as across affective spectrum psychoses (0.84). Changes from schizophrenia spectrum to affective spectrum were infrequent (0.05), and about 0.1 of the initial affective spectrum psychoses shifted towards schizophrenia spectrum psychoses. These findings may be of direct clinical relevance to clinicians who are required to follow the differential NICE guidelines for early schizophrenia spectrum vs affective spectrum psychoses. The concern that initial first-episode diagnosis, if incorrect, may impede clinical care is particularly relevant for changes between schizophrenic and affective spectra and less so within the same spectrum. Differences between an initial diagnosis of major depressive disorder with psychotic features and that of schizophrenia are profound, not only in the pharmacotherapies and specific forms of psychological therapy typically used "but also in the descriptions provided to newly diagnosed individuals and their families as to what lies ahead."[5] Indeed, recent epidemiological studies in first episode samples have confirmed that schizophrenia spectrum diagnoses have a worse clinical, social and service use course and outcome as compared to affective spectrum diagnoses.[73]
- We also showed that first episode psychosis diagnoses other than schizophrenia or affective spectrum psychoses had a low diagnostic stability. Diagnostic changes were frequently to schizophrenia: 0.31 of initial psychosis not otherwise specified, 0.29 of initial delusional disorders, 0.21 of initial acute and transient psychotic disorder/brief psychotic disorder, and 0.17 of initial substance-induced psychotic disorder. Because of these changes to schizophrenia, the retrospective diagnostic stability of schizophrenia spectrum disorders was low, suggesting that a significant number of the patients may be misdiagnosed at baseline. Careful monitoring and reassessment of patients presenting with unstable and remitting first episode diagnoses, such as acute and transient psychotic disorder/brief psychotic disorder,[77] seems especially important.

Fusar-Poli et al., 2016).

DIAGNOSTIC STABILITY

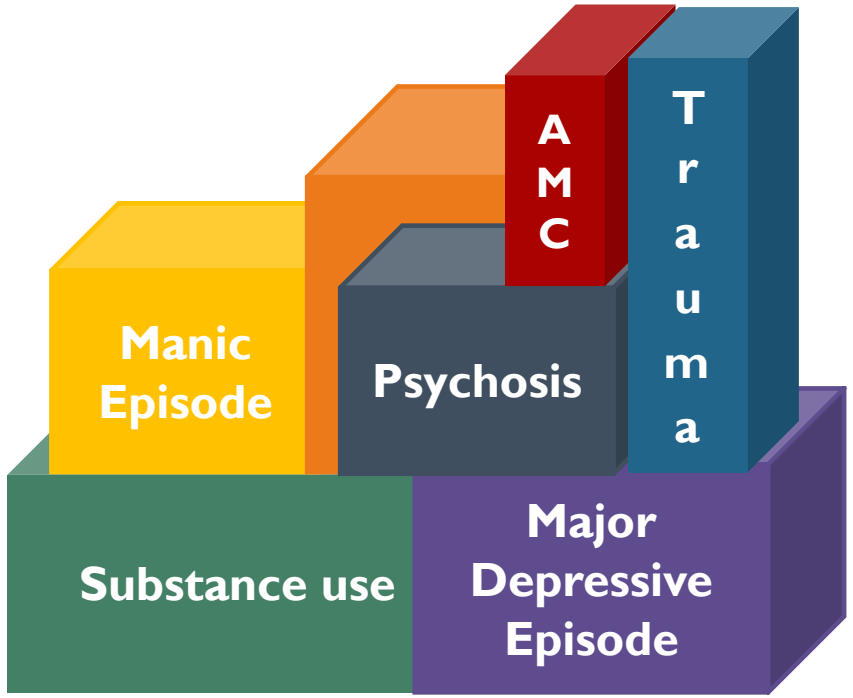
The quantification of diagnostic stability and instability of first episode psychosis diagnoses is of paramount practical import,[5] to ensure diagnostic validity[6] and optimize early interventions,[7] in light of the limited treatment achievements in the late stages of the disorder.[8,9]

The reported overall consistency of diagnosis in FE samples tends to be approximately 70%; schizophrenia is reported to be the most stable diagnosis with average rates of 92%

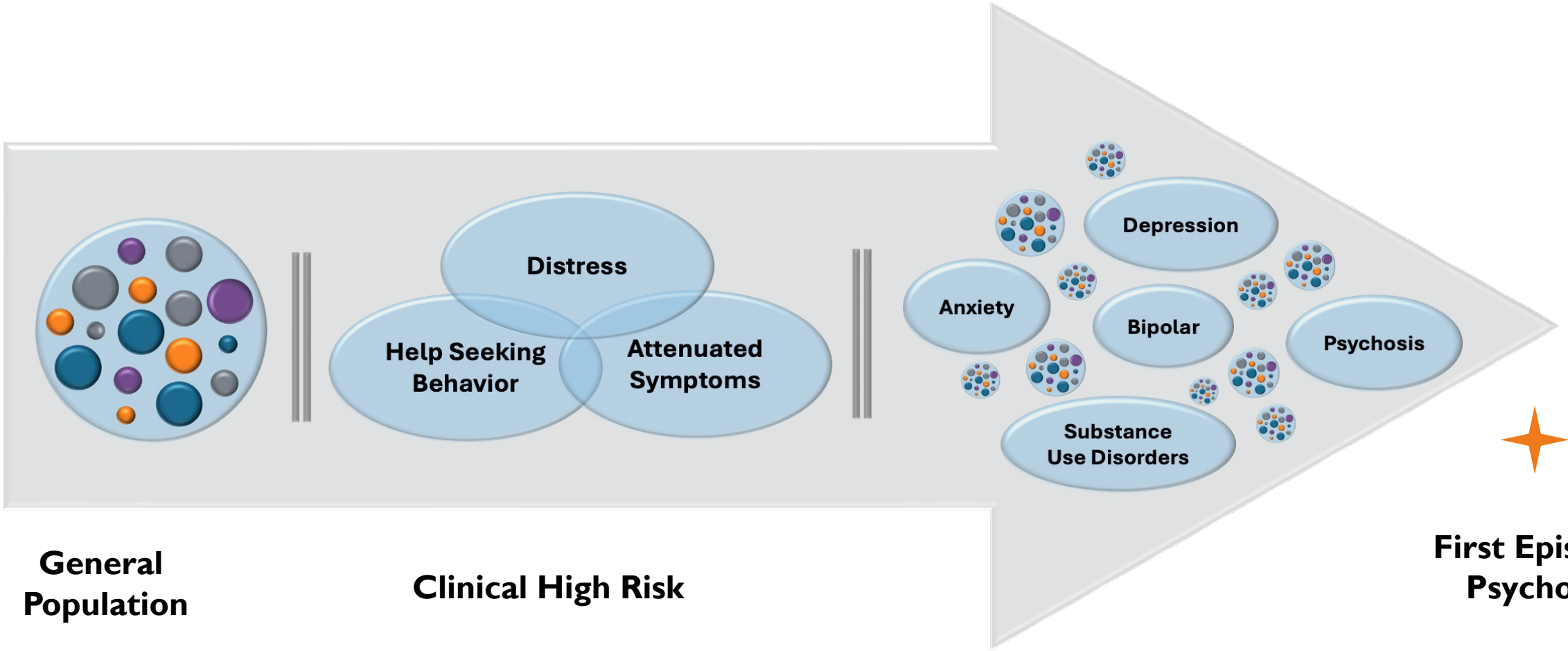
Clinicians also must be attuned to developmental, cultural, and intellectual factors that may influence assessment and diagnosis. Awareness of such factors allows the clinician to interpret clinical data correctly and to differentiate among appropriate and inappropriate behaviors. For example, research has shown that minority youth have a higher chance of being misdiagnosed with a behavior disorder or schizophrenia.[27] There may be several reasons for this misdiagnosis; one explanation is that some distress idioms are more confined to particular racial and ethnic groups. In some cultures and religious groups, certain

BUILDING BLOCKS

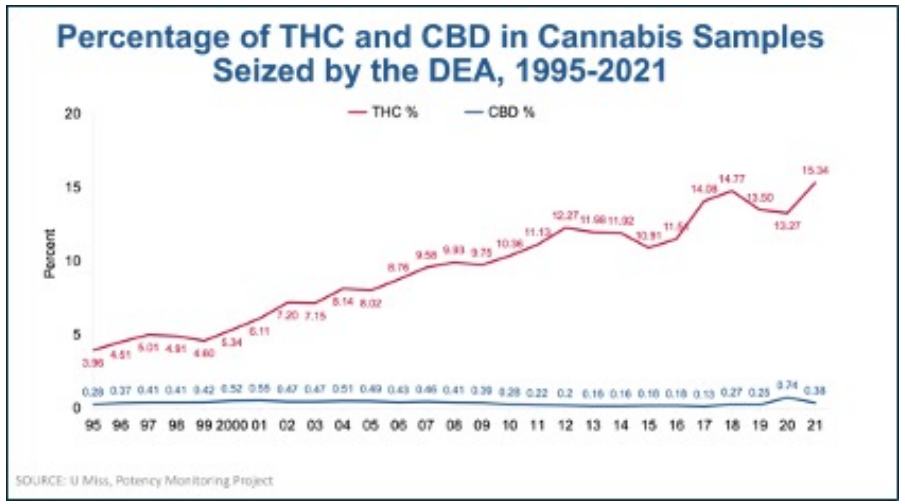
- *Building blocks, depending on their occurrence with other building blocks, will form a disorder:*
- *Psychotic symptoms*
- *Major depressive episode (MDE)*
- *Manic episode*
- *The disorders formed by these blocks depend, among a few other things, on: Timing of each block in relation to the others*
- *Temporal relationship of the ONSET of one block in relation to the onset of the other blocks*
- *Duration over the course of illness of one block relative to the others.*
- *Presence of substance use (not necessarily abuse or dependence)*
- *Presence of another medical condition (AMC)*



VULNERABILITY TO PSYCHOSIS



- Cannabis use is consistently linked to poorer mental health outcomes
- **Higher-potency** cannabis associated with **higher risks** for mental health disorders



Use of **higher potency cannabis**, compared with lower potency cannabis, is associated with an **increased risk of psychosis**

- This risk is higher in people who use cannabis daily
- Higher potency cannabis use has also been associated with an **earlier onset** of psychosis, **more symptoms** of psychosis, and an increased **risk of relapse**

OF NOTE

Nearly **10 million** Americans have a psychotic disorder

70% experience first episode of psychosis **before age 25**

35-45% of young adults experiencing psychosis use cannabis

- Young adults with psychosis and those at risk for psychosis report a greater "high" from cannabis
- 1 in 4 young adults experiencing psychosis meet criteria for a cannabis use disorder (CUD)

(Rates of CUD in general population of young adults (18-25) is 5%)

Large, Sharma, Compton, Slade, & Nielssen, 2011; Di Forti, Sallis, Allegri, Trotta, Ferrar, et al. 2014.

- It is clear now that "the grass is not greener," as data from 6 longitudinal studies in 5 countries have shown that regular cannabis use predicts an increased risk for schizophrenia and symptoms of psychosis.[43] Cannabis use during early adolescence coupled with a specific genetic vulnerability and changes in brain development are correlated with risk for the development of schizophrenia[44] and overall cognitive decline.[45] However, the direction of the effect has been called into question. Some suggest that individuals with psychosis use cannabis to alleviate their psychotic symptoms or to improve their mood.[46] Others, however, suggest that cannabis causes or exacerbates psychotic symptoms.[47] A pooled analysis of 35 studies showed a dose-response effect, with greater risk of psychosis in people who used cannabis most frequently.[47] Moreover, individuals with schizophrenia who are moderate to heavy cannabis users show a greater brain volume reduction over a 5-year follow-up compared with nonusers.[48]
- Despite the fact that fewer adolescents believe that regular cannabis use is harmful to their health and increasingly permissive state laws governing the use of medical marijuana, the medical literature presents clear evidence for a neurotoxic effect of cannabis on the adolescent brain. These findings highlight the importance of efforts targeting adolescent cannabis use, including policy measures and psychoeducation in the doctor's office.

PRIMARY VS SECONDARY PSYCHOSIS

- **Rates and Predictors of Conversion to Schizophrenia or Bipolar Disorder Following Substance-Induced Psychosis**

LATER SYMPTOMS

Hallucinations
Seeing or hearing things that aren't really there

Delusions
False or fixed ideas that are not often based in reality

Disorganized Thinking
Derailed or incoherent speech

Flat Affect
Monotone voice, diminished facial expressions, apathetic

Paucity of Speech / Thought
Only speak when prompted and reply with short answers

Bizarre Behavior
Inappropriate, disorganized, or odd behavior inappropriate for a child's age

PSYCHIATRIC CONDITIONS ASSOCIATED WITH PSYCHOSIS
IN CHILDREN AND ADOLESCENTS

- Psychotic symptoms in childhood and adolescence more likely accompany other psychiatric conditions
  - **Bipolar disorder** – hallucinations and delusions but also has the clinical characteristics of mania, depression, or both
  - **Psychological trauma** – related hallucinations (typically associated with nightmares and trance-like states), psychotic symptoms may quickly abate with psychotherapeutic and/or social interventions

  - **Autism spectrum disorders** – may also have odd beliefs (eg, believing that they are able to communicate with valued inanimate toys); Milder forms of autism may be misdiagnosed with psychosis due to their idiosyncratic beliefs, social awkwardness, and concrete thought process

Stevens et al., 2014

PSYCHIATRIC CONDITIONS ASSOCIATED WITH PSYCHOSIS

IN CHILDREN AND ADOLESCENTS

Alcohol intoxication/ Withdrawal	**ADHD**	**ASD**	**Bipolar Disorder**	**Brief Reactive Psychosis**
Catatonia	**Delirium**	**Delusional Disorders**	**Factitious Disorders**	**MDD**
Malingering	**OCD**	**Parasomnias**	**Personality Disorders**	**PTSD**
	Schizoaffective	**SZ Spectrum**	**Severe Stress**	

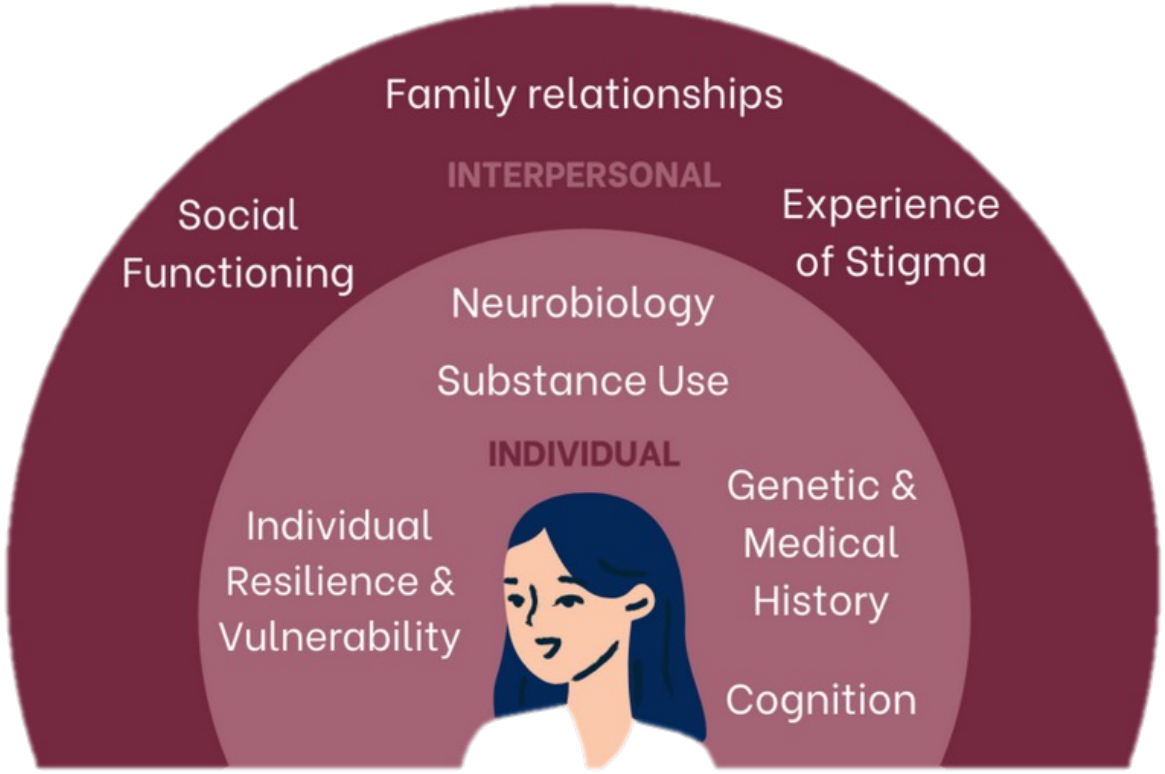
Stevens et al., 2014

MENTAL HEALTH IN CHILDREN AND ADOLESCENTS

- Mental health problems account for 16% of the global burden of disease and injury among 10–19-year-olds
- According to the **2022 National Healthcare Quality and Disparities Report** number of psychiatric and neurodevelopmental diagnoses among minors has **increased**
- 20% children and adolescents (ages 3-17 yrs) in the US have a mental, emotional, developmental, or behavioral disorder
- In 2018-2019: **~15%** of adolescents ages 12-17 yrs had a major depressive episode, **37%** had persistent feelings of sadness or hopelessness, **~20%** reported that they ***seriously considered suicide***
- In adolescents ages 12-17 years, the % who received mental health services in inpatient or outpatient care in the past year **increased** from 11.8% in 2002 to 16.7% in 2019
- Over that same period, the percentage who received mental health services in a general medical setting increased from 2.7% to 3.7%
- The percentage who received mental health services in an **education setting** in the past year increased from 12.1% in 2009 to 15.4% in 2019

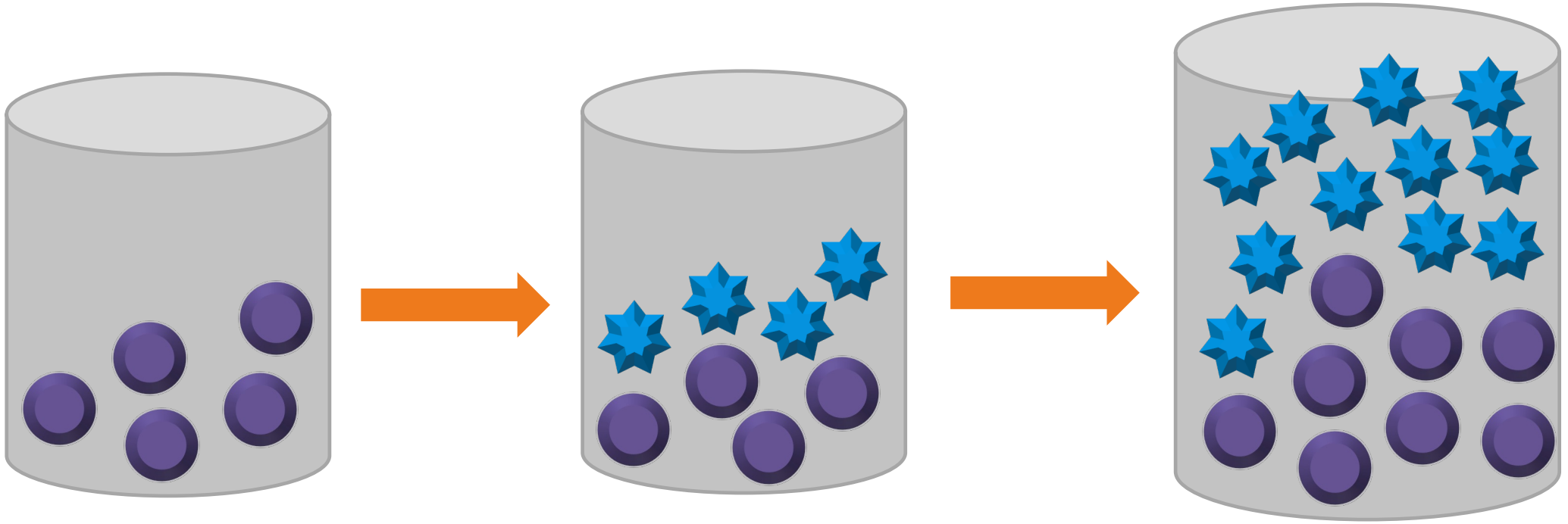
Anttila et al., 2020; Bakken, 2020, Bakken, 2021; **National Healthcare Quality and Disparities Report** Rockville (MD): Agency for Healthcare Research and Quality (US); 2022 Oct.

RISK AND PROTECTIVE FACTORS

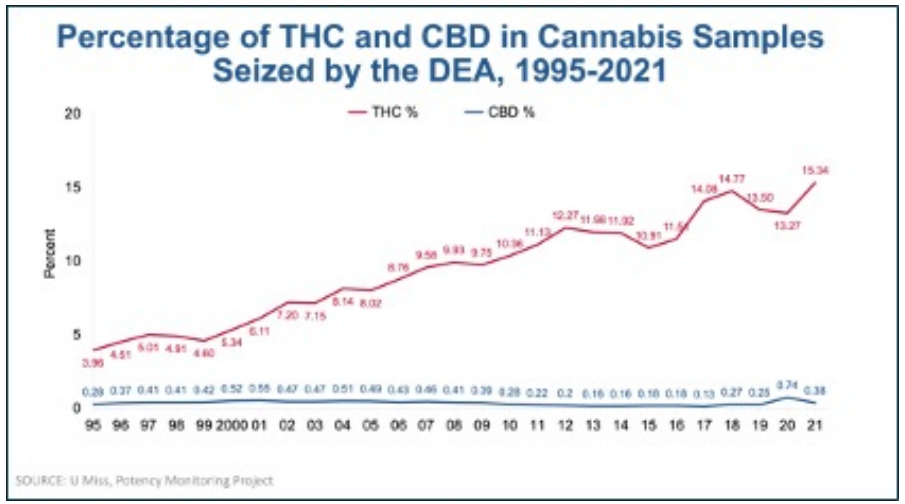


- **Early detection enables prompt treatment and a better prognosis**

https://www.mapnet.online/the-facts



CANNABIS



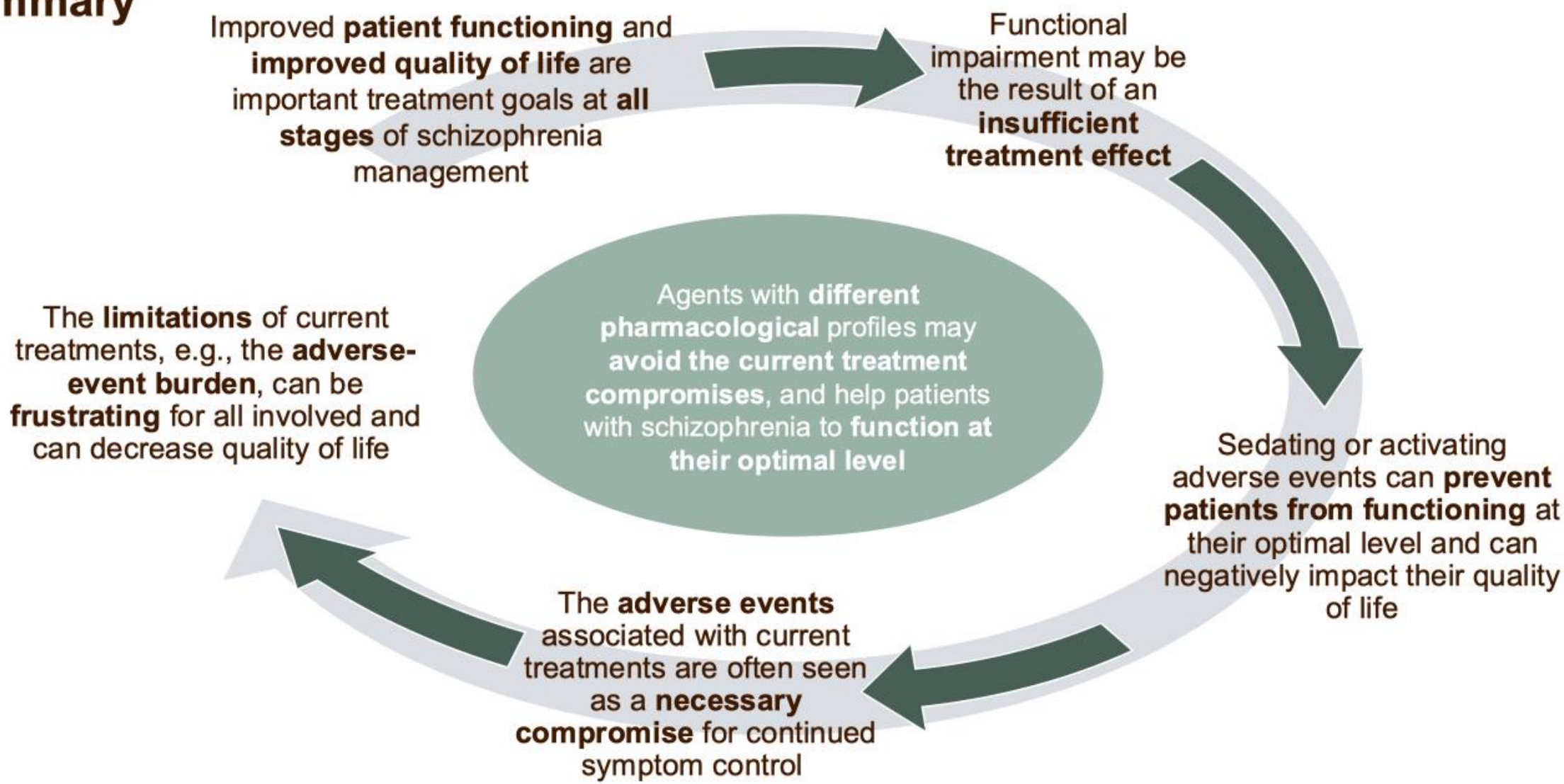
- Cannabis use is consistently linked to poorer mental health outcomes
- **Higher-potency** cannabis associated with **higher risks** for mental health disorders

Use of **higher potency cannabis**, compared with lower potency cannabis, is associated with an **increased risk of psychosis**

- This risk is higher in people who use cannabis daily
- Higher potency cannabis use has also been associated with an **earlier onset** of psychosis, **more symptoms** of psychosis, and an increased **risk of relapse**

Large, Sharma, Compton, Slade, & Nielssen, 2011; Di Forti, Sallis, Allegri, Trotta, Ferrar, et al. 2014.

Summary



For references, please see slide notes

CULTURE, TRAUMA, & LANGUAGE

THINGS TO CONSIDER

- Cultural beliefs and practices
  - Beliefs in ghosts by the family or religious experiences
- Reinforcement for reporting of psychotic experiences
- Environmental factors
- Nonpathological responses to chaotic life - ex: bullying at school
  - Suspiciousness, hypervigilance in response to trauma
  - Do symptoms occur outside these contexts?
- Adaptive behaviors
  - Imaginary friends, pretend play (having superpowers)

CULTURAL CONSIDERATIONS

Culture

The collection of practices, beliefs, institutions and experiences of a social group.

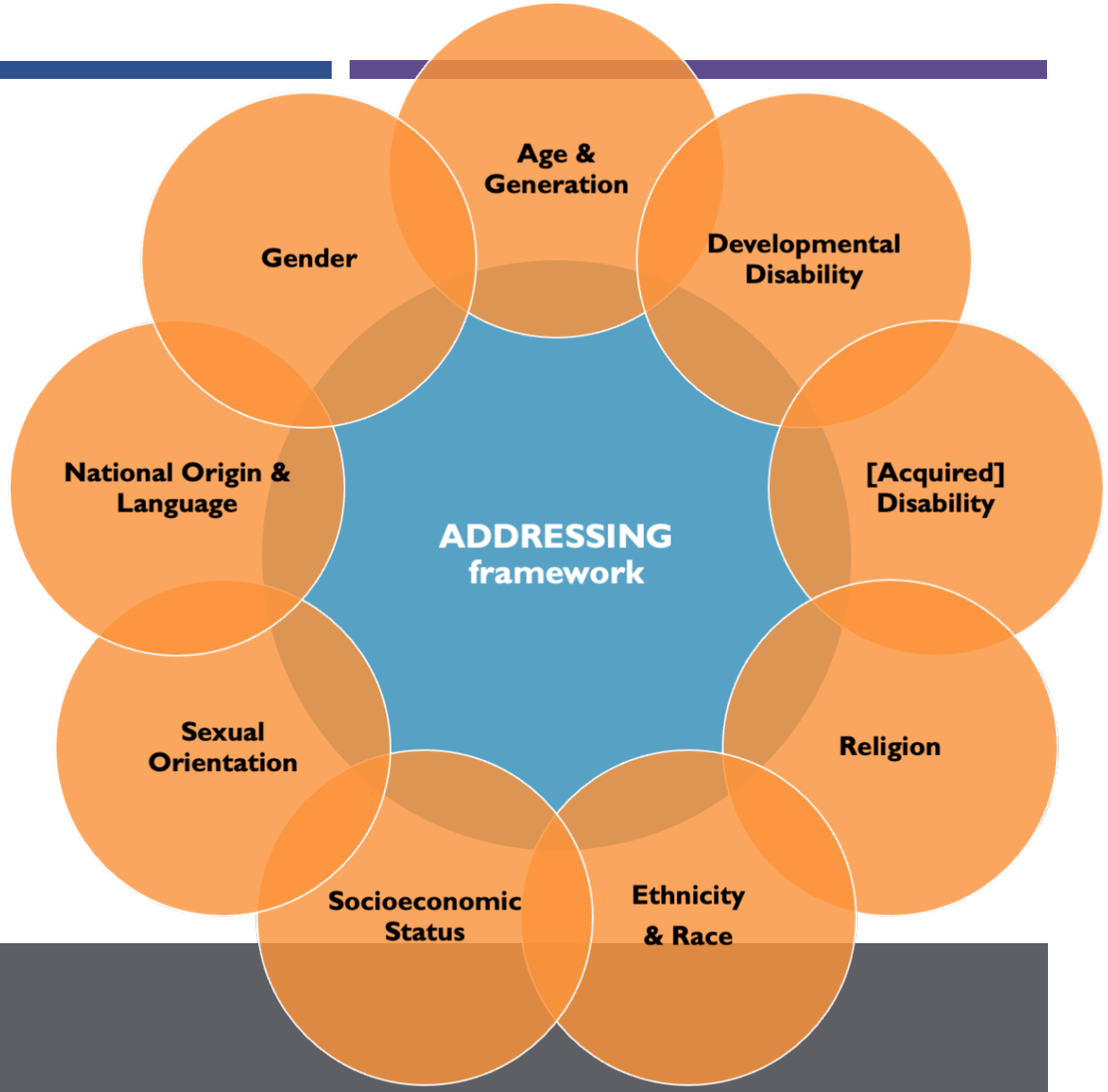
This dynamic set of shared attitudes and customary practices shape our perceptions of the world and exert an influence on the **form and content of psychosis symptoms.**

- There is substantial variability in the appraisal of symptoms of psychosis across cultural groups (see slides at end for reference)
- 15%–40% of the variability in the way psychosis symptoms are experienced & described can be accounted for by cross-cultural differences
    - Has led to the growing interest towards understanding how cultural factors contribute to the formation and maintenance of psychosis, as well as engagement with treatment and services

ADDRESSING CULTURAL FRAMEWORK

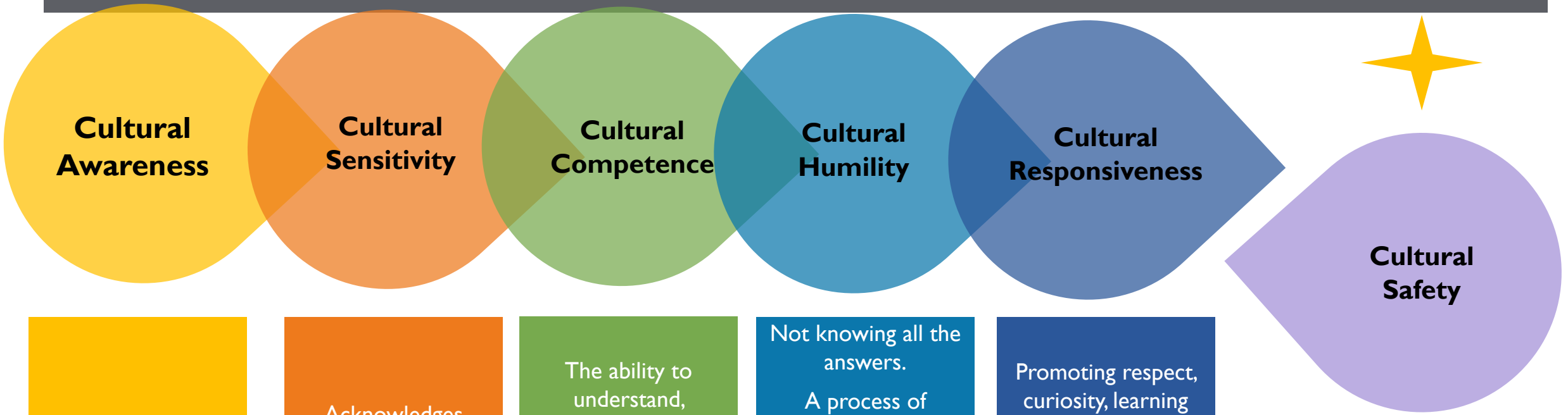
-
-
-

supernatural and decreased eye contact)



Recognize and understand cultural characteristics as a multidimensional combination

CULTURE IN CARE



Acknowledges different ways of seeing the world.

Acknowledges different ways of seeing the world without assigning a value.

The ability to understand, appreciate and interact with people from cultures or belief systems different from one's own.

Not knowing all the answers.

A process of openness and self-awareness & lifelong learning from others.

Understanding and addressing power imbalance.

Promoting respect, curiosity, learning and belonging.

Privileging perspectives and experiences of minoritized groups.

Indicates whether the care received was culturally safe or not.

APA, 2015; Danso et al., 2018; Alang et al., 2019.

CULTURE INFORMS CARE

Respect over Rapport

- Quiet and non-intrusive approach
- Work with alternative explanations of experiences & impact
- Importance of self-disclosure and honesty
- Concept of time is inconsistent between cultures
- Some people may share less information
- It is immodest in some cultures to recite strengths
- Western philosophy is very psychologically / medically oriented whereas other cultures prioritize embodied experience
- Consider impact of trauma beyond individuals

TRAUMA

People with experiences of psychosis repor high rates of trauma

- Child physical, sexual and emotional abuse far more common in individuals experiencing

"Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being." SAMHSA 2019.

TRAUMA INFORMED CARE

Trauma-informed care shifts the focus from
"What's wrong with you?"
to
"What happened to you?"

INFORMED CARE

Things to think about

Consider the dynamic from the individual's perspective

- Not being seen/heard
- Violating trust
- Failure to ensure emotional safety
- No collaborative environment in treatment
- Doing things for rather than with
- Use of punitive treatment, coercive practices and oppressive language
- Being seen as their label (schizophrenic, addict)
- No choice in service or treatment
- No opportunity to give feedback about their experience with the service delivery
- Make good use of language

Recognize and understand the role of language and communication through engagement that is sensitive to the lived experience of the individual, couple, family, group, and community

As behavioral and mental health providers, see

INFORMED LANGUAGE

Creator: Benjavisa | Credit: Getty Images/iStockphoto

Utilize Language Consciousness

-
-
-
  -
  -
-
-
-

SYMPTOMS AND LANGUAGE

Typical questions most clinicians ask about psychosis:

Do you ever see or hear things that others don't see or hear?

BETTER questions ask about psychosis:

The language used to explain psychosis is often *prescriptive*

- **May be subjective and stigmatizing**

Psychosis is a *descriptive* experience

- **Each experience is unique**

Ask questions that are broad & non-threatening

While these types of questions can take you in many directions, they can / will pick up on symptoms of psychosis or attenuated psychosis

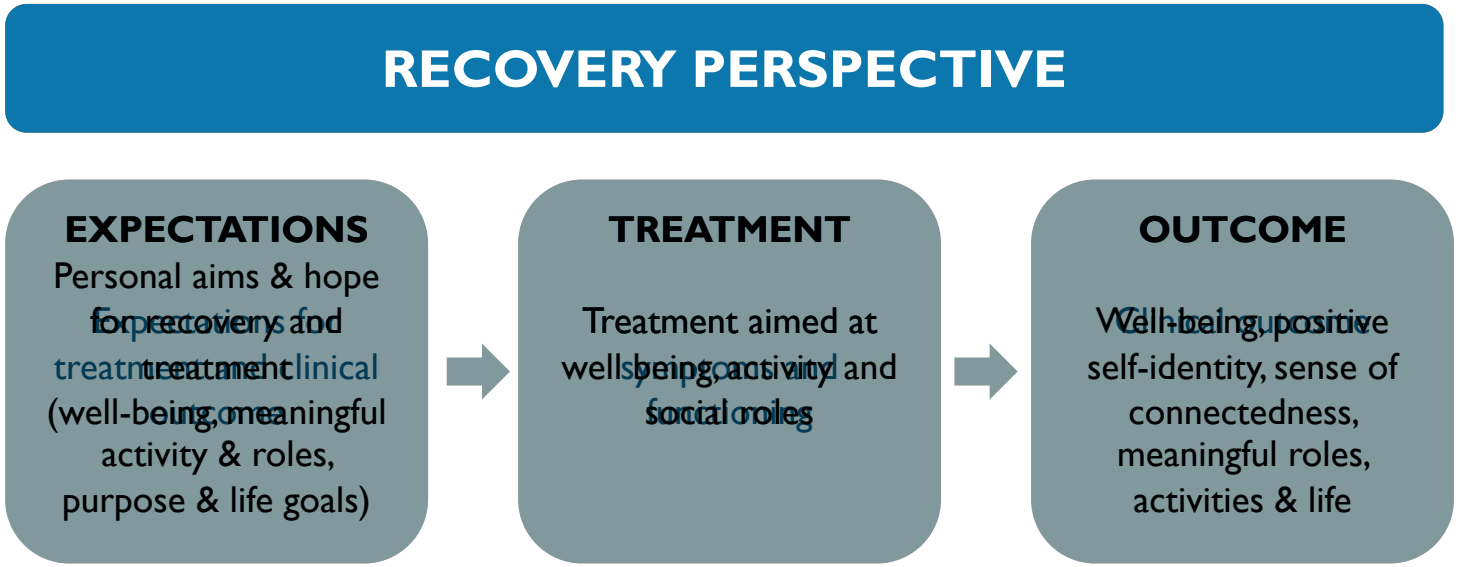
LANGUAGE WHEN WORKING WITH FAMILIES

Credit: VectorStock

LANGUAGE WHEN WORKING WITH FAMILIES

Validate family members' feelings, use patience, active listening skills, and express support

Credit: VectorStock



Adapted from: Biringer et al, 2016.

RECOVERY-ORIENTED CARE & SHARED DECISION MAKING

Recovery oriented care

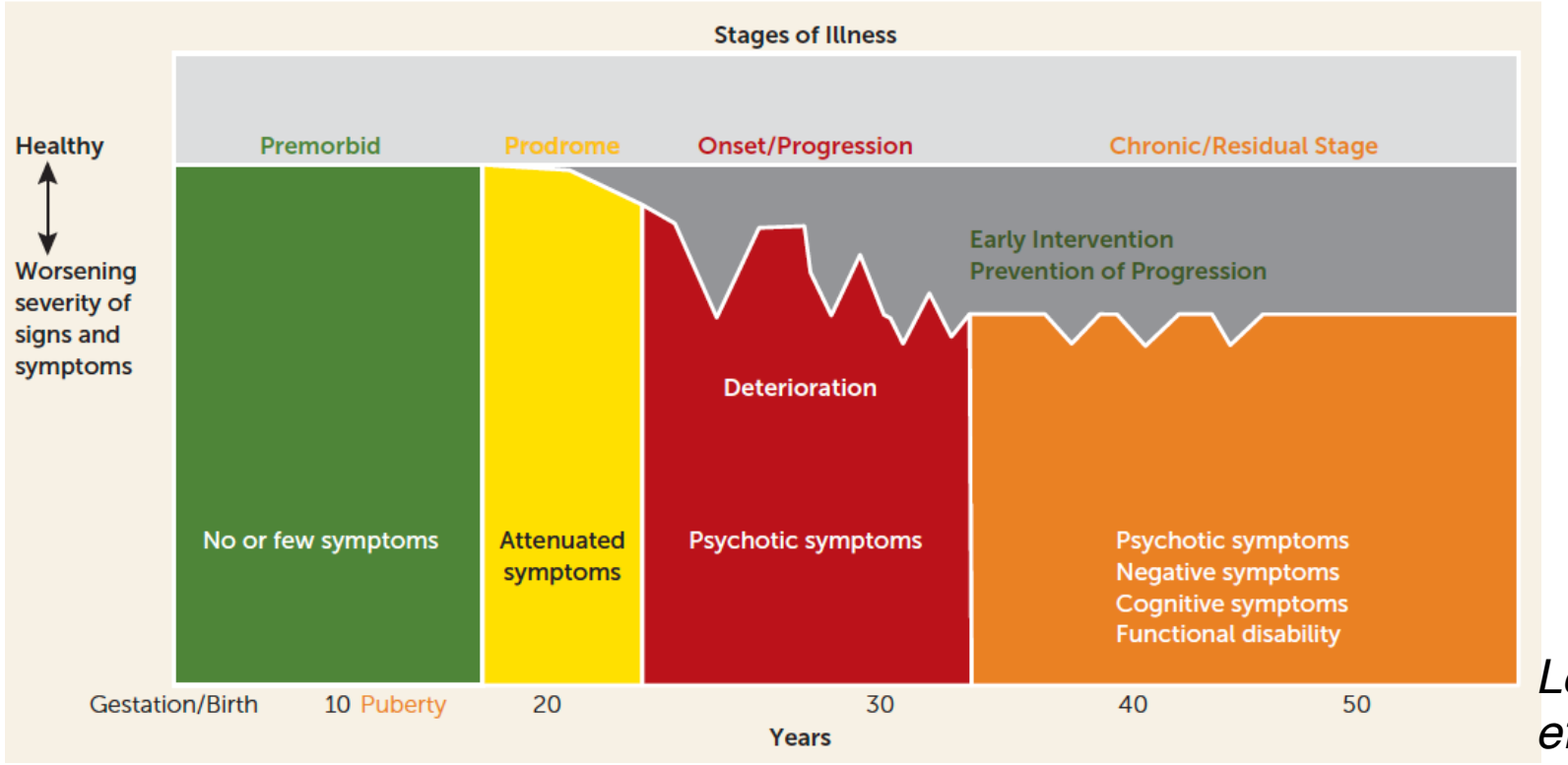
- Focuses on strengths, goals, values, preferences, hope, empowerment, respect, social support, self-efficacy, personal responsibility
- Diagnosis is a treatment guide
    - Shapes/affects a person, but not define them
- People have insight into their own reality and experiences
- People can take care of themselves with support
- People with experiencing psychosis can and do recover
    - Recovery is unique to the individual - can only be defined by the individual
- Care is done with the individual not to the individual
- Shared decision making (individual has authority)

Shared decision making

- Clinical decisions are guided by the individual's preferences, needs, and values
- Make sure the individual and their support team (other clinicians, case managers, family/caregivers, social supports, etc.) are aware and informed about multiple options for care
- Ask questions to gain more information about the individual and their family's preferences, needs, and values

RATIONALE FOR EARLY INTERVENTION

RATIONALE FOR EARLY INTERVENTION



Treatment is most effective if began when **at or prior to the onset of the first episode**

Early intervention improves outcomes

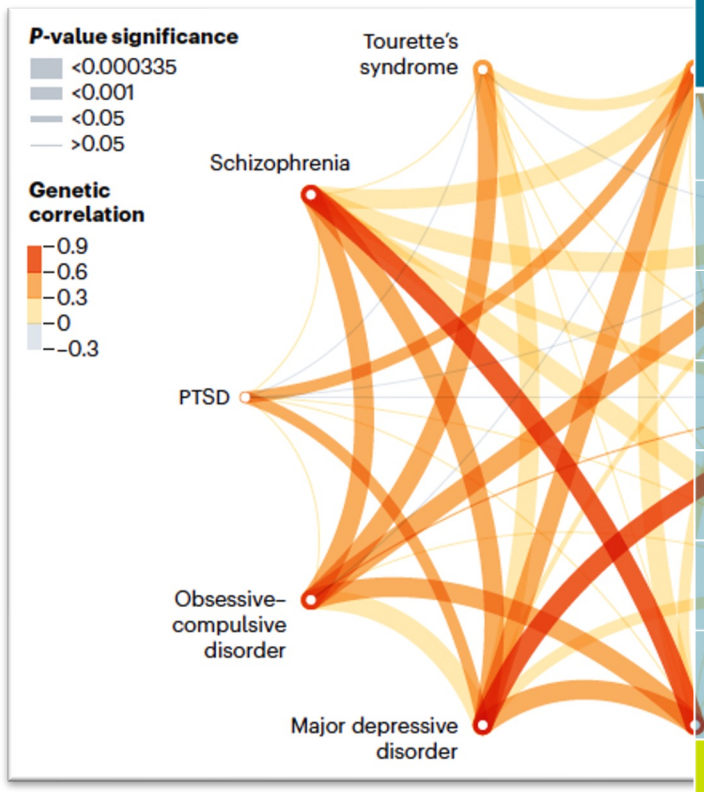
- longer retention in treatment
- greater improvement in symptoms
- improved interpersonal relationships
- improved quality of life
- limit the progressive decline in functioning

Long delays between the onset of psychosi effective treatment (the duration of untreate psychosis) are the norm.

Leiberman & First, 2018

ASKING ABOUT FAMILY HISTORY

Many people may not know their family mental health history— but may know information that is relevant.

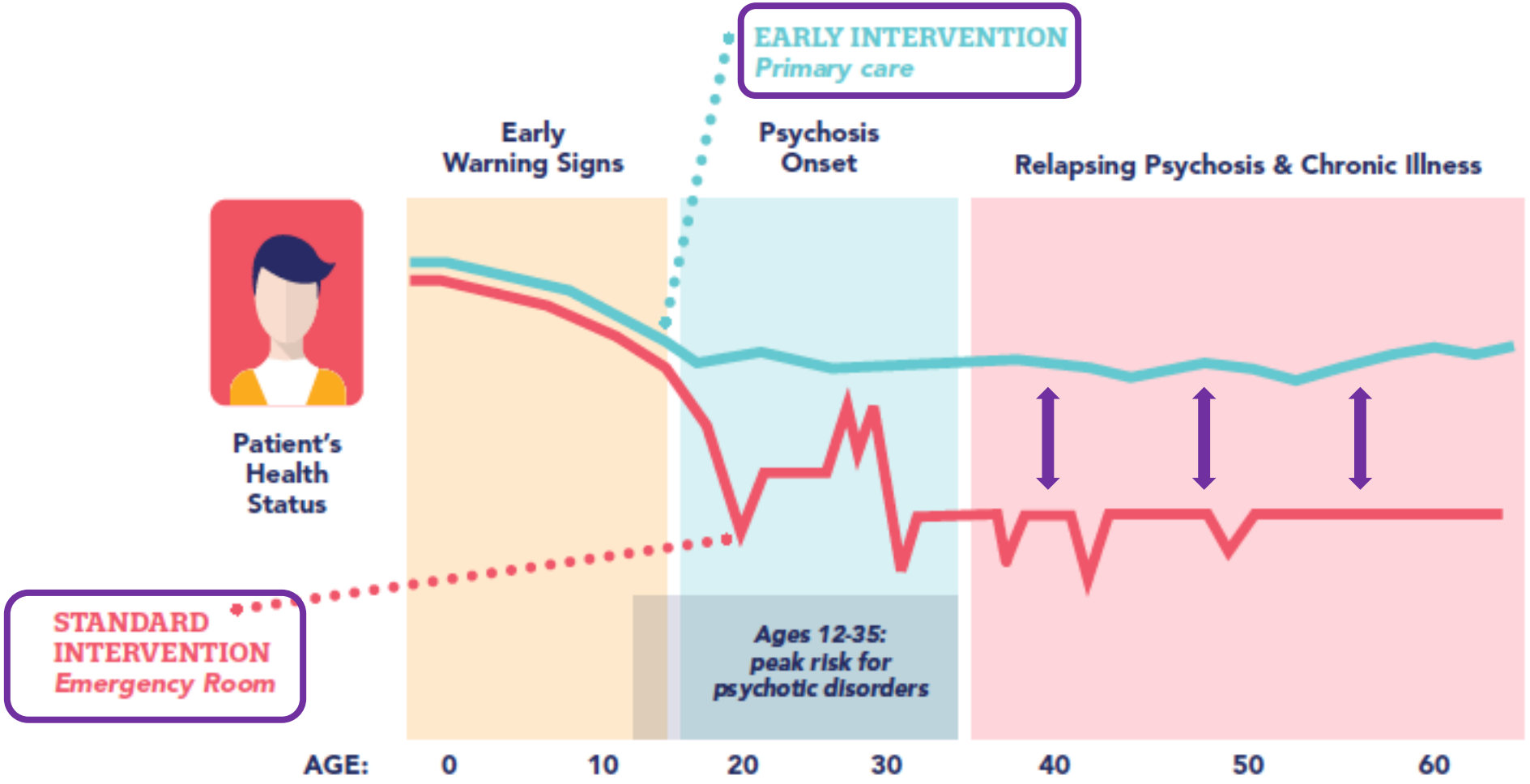


Relative with Schizophrenia	Risk of Schizophrenia
Identical Twin	48%
Fraternal Twin	17%
Two Parents	35%
One Parent	13%
Full Sibling	9%
Half Sibling	6%
Cousin, Uncle, Aunt, Grandparent	2%
General Population	1%

Do you know of any family members who:

- Were diagnosed with a major mental illness such as schizophrenia, bipolar disorder, or major depression?
- Were hospitalized for mental health concerns?
- Were unable to go to work or school for more than a couple of weeks?
- Had very few friends or seemed like loners?
- Seemed odd or eccentric, like in their behavior or appearance?
- Seen visions, heard voices, or had beliefs that seem unreal?

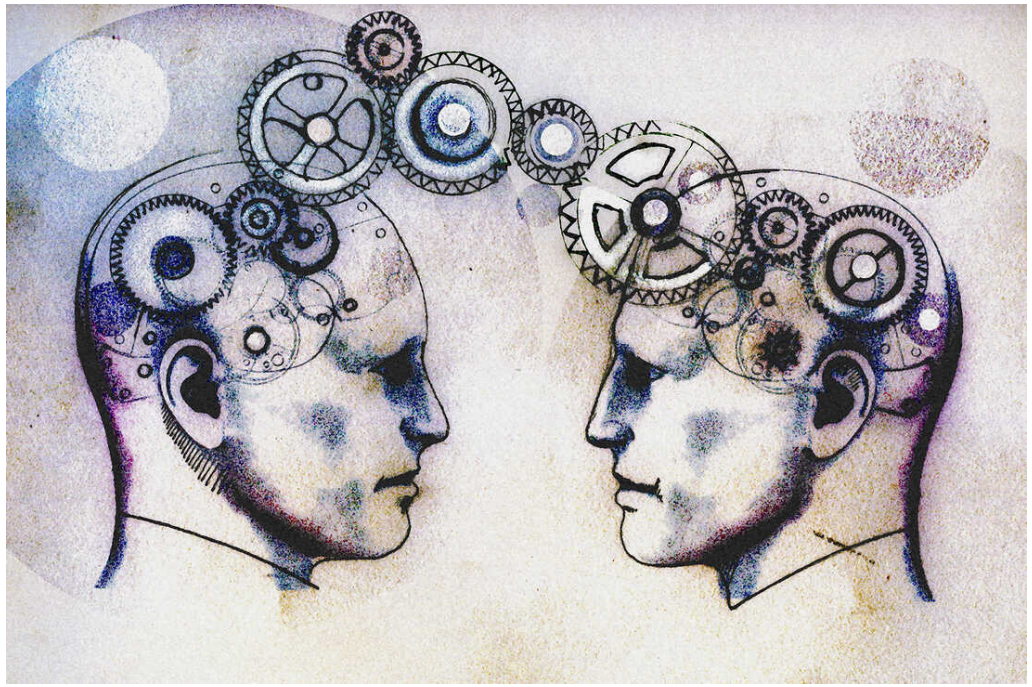
Marshall 2020; Poletti et al 2020.


EARLY INTERVENTION
Primary care
Early
Warning Signs
Psychosis
Onset
Relapsing Psychosis & Chronic Illness
Patient's
Health
Status
STANDARD
INTERVENTION
Emergency Room
Ages 12-35:
peak risk for
psychotic disorders
AGE:
0
10
20
30
40
50
60

EARLY INTERVENTION IMPROVES OUTCOMES

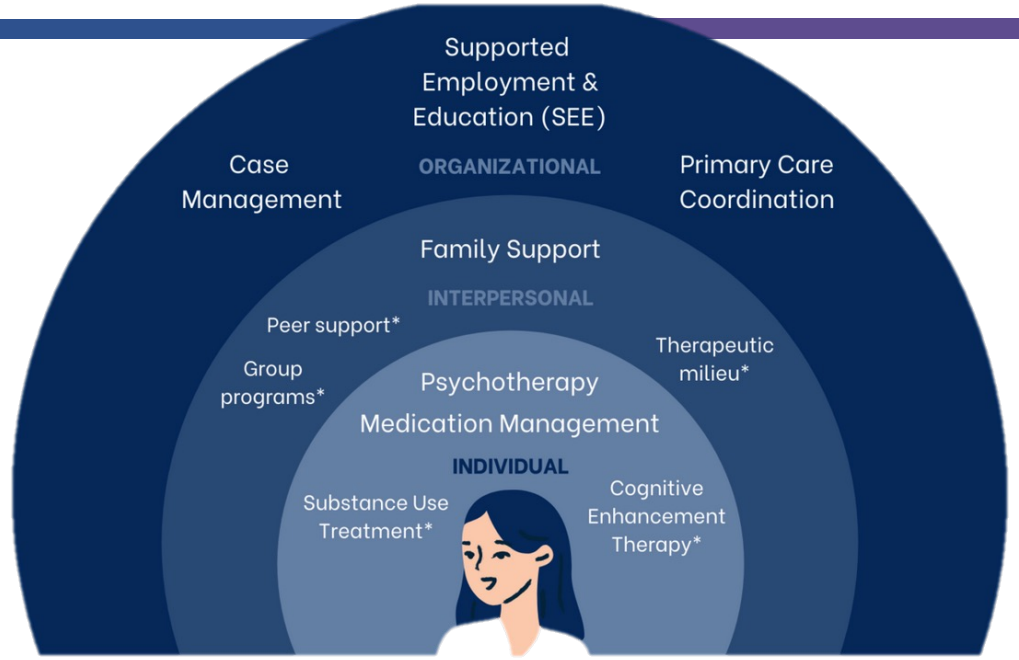
Improved outcomes are achieved when first symptoms are **identified** and **treated** early

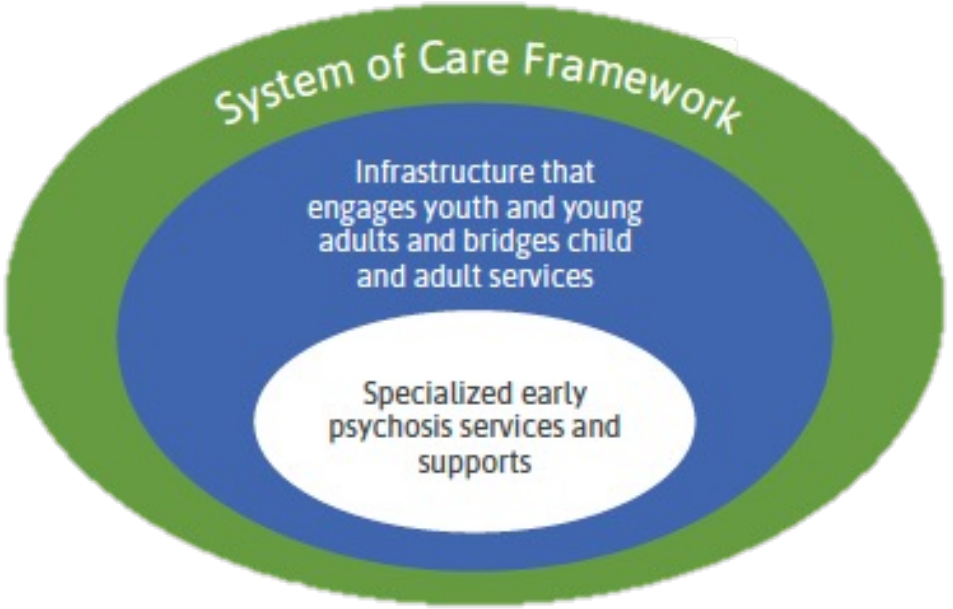
- Clinical and psychosocial deterioration occur



Gary Waters/Ikon Images/Corbis

EARLY INTERVENTION IMPROVES OUTCOMES





COORDINATED
CARE
CSC

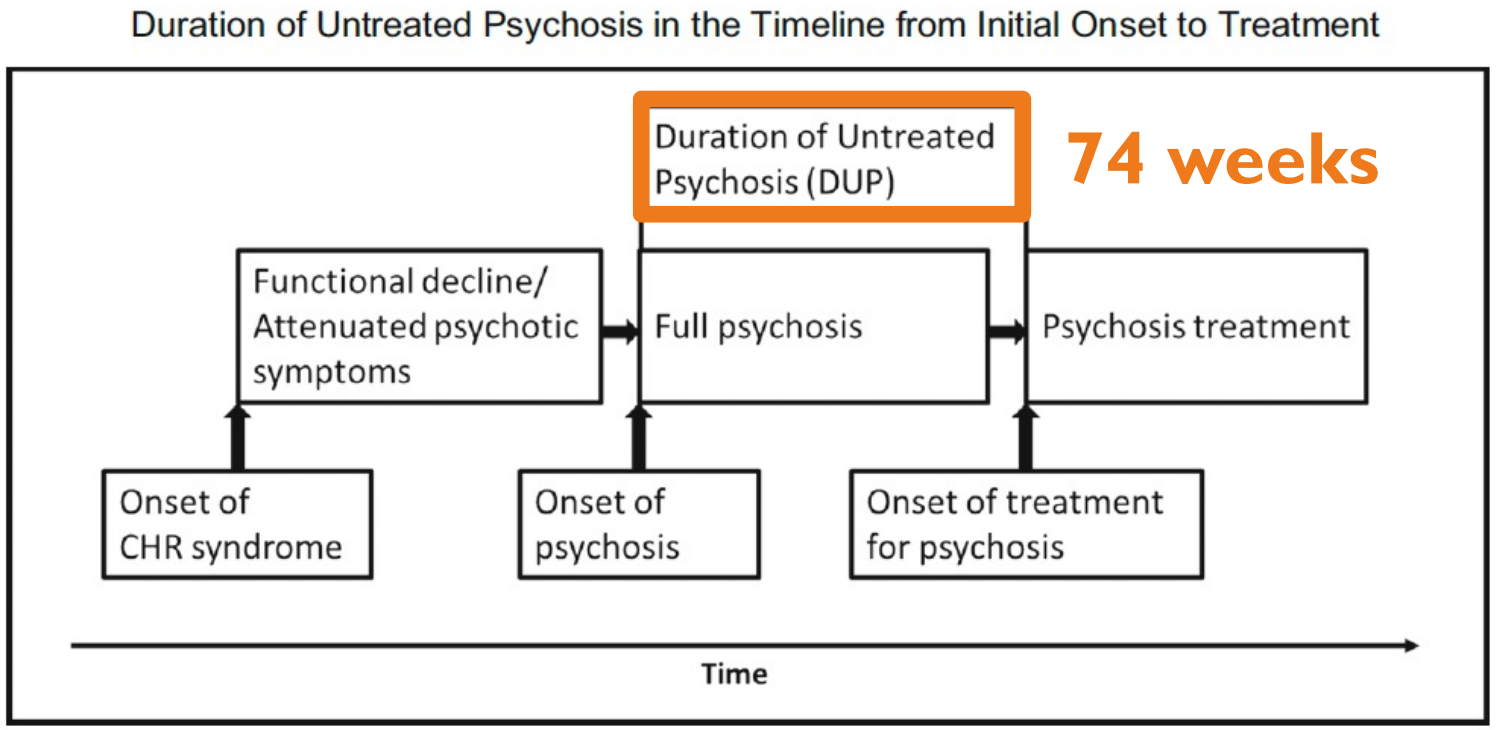
CSC – Coordinated Specialty Care

- **Treatment planning is *collaborative & involves shared decision making***

GOAL

IMPROVED OUTCOMES ARE ACHIEVED WHEN FIRST SYMPTOMS ARE **IDENTIFIED** AND **TREATED** EARLY

Clinical and psychosocial deterioration occur within **first five years** after the onset of symptoms



IMPROVED OUTCOMES

Longer retention in treatment
Greater improvement in symptoms
Decrease in positive & negative symptoms
Improved interpersonal relationships
Improved quality of life
Limits progressive decline in functioning
Reduced mortality
Cost savings

Savill et al, 2018; Malla & McGorry, 2019; Kane et al, 2016; Perkins, 2005..

GOLD STANDARD
COORDINATED SPECIALTY CARE (CSC)

Treatment planning is *collaborative & involves shared decision making*

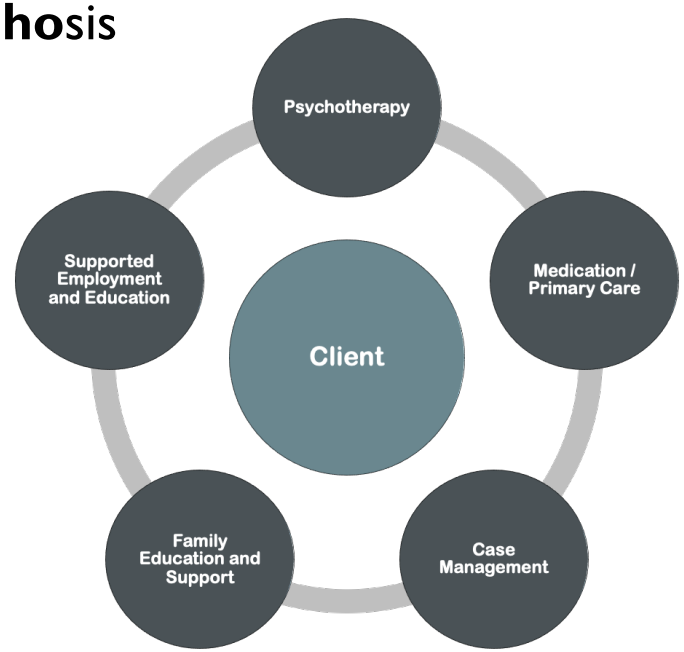
Coordinated Specialty Care (CSC) is a multidisciplinary team approach to providing care for young and emerging adults having their ***first episode of psychosis***

The creation of CSC was based on the association between **poorer clinical, social, and functional outcomes** for those who live with **longer duration of untreated psycho**sis

Critical to CSC is intervention during period of emerging symptoms

Addresses the following key areas:

- Case Management
- Medication/Primary Care
- Psychotherapy
- Family Education and Support
- Supported Employment and Education
- Peer Support *



INTAKE AND ASSESSMENT
MEASUREMENT OF DUP AND FIRST EPISODE

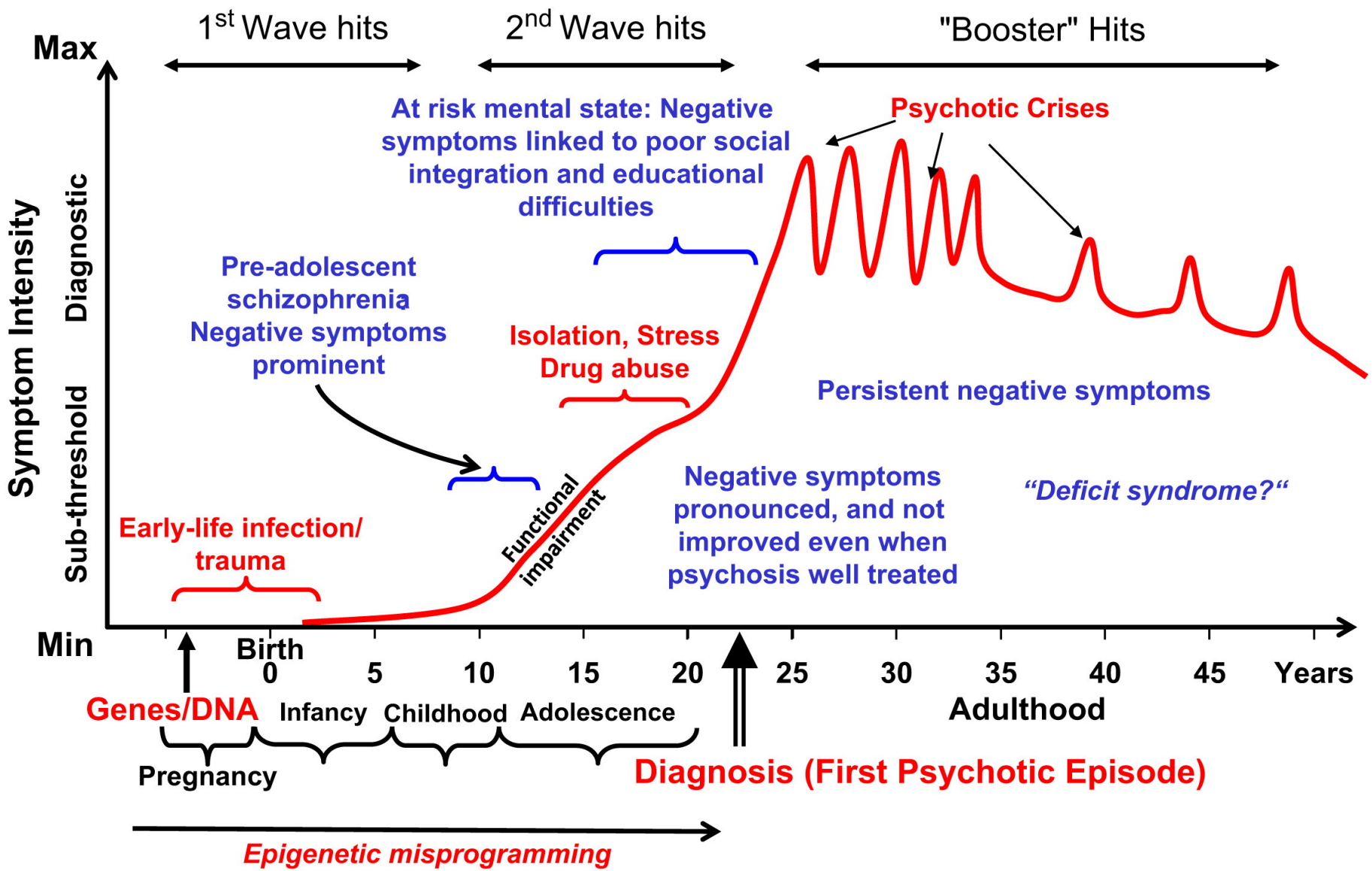
Accurate measurement of DUP is based on a comprehensive clinical evaluation that includes detailed assessment of the timeline of psychosis symptom onset

During a semi-structured interview all relevant domains are assessed (SCID):

- developmental and medical history
- social history
- work/school history
- psychiatric treatment history
- recent stressors, and trauma history
- detailed history of mood, anxiety, substance use, and psychosis symptoms

Onset is determined through routine questioning about the onset, frequency, duration, distress, and effect on behavior for each psychosis symptom.
Through this process-- determine the timeline of symptom progression and identify the point at which symptoms reached a psychotic threshold.

First, Williams, Karg, & Spitzer, 2015; Miller at al., 2003; Kane et al., 2016



Millan et al, 201

BARRIERS TO EARLY CARE

- Individual factors (e.g., poor insight, avolition, poor socia integration)
- Youth and young adults in early stages of psychosis seek treatment for disorders that are not explicitly tied to