Session 5: Mental Health – Psychotic Disorders

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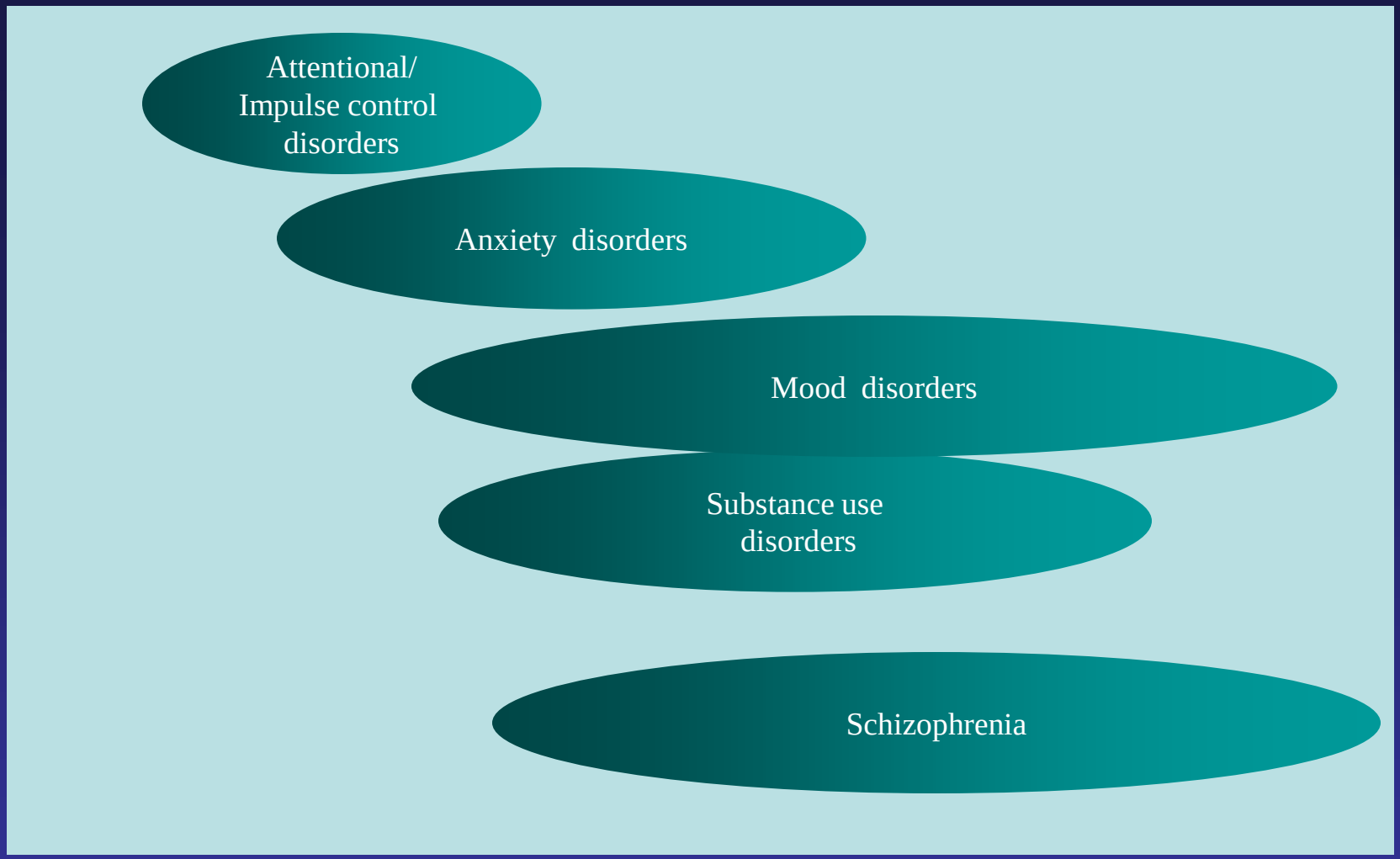
Disclosure slide

- I have no conflicts of interest to disclose

Epidemiological Studies of Rates of Schizophrenia & Other Psychotic Disorders

- Psychotic Disorders are comprised of schizophrenia spectrum disorders and affective psychoses.
- Schizophrenia occurs in all countries
- Prevalence rates vary from 0.5% to 3% (average is 0.75%) lifetime (a little less than 1 in 100)
- 1.4 Males > 1.0 Females, age of onset (M-22, F-27)
- Peak ages of onset 16-30, adolescence – “incidence”
- Affective Psychoses (Bipolar Disorder & Major Depressive Disorder with psychotic features) ~ 2% lifetime
- Similar period of age of onset.



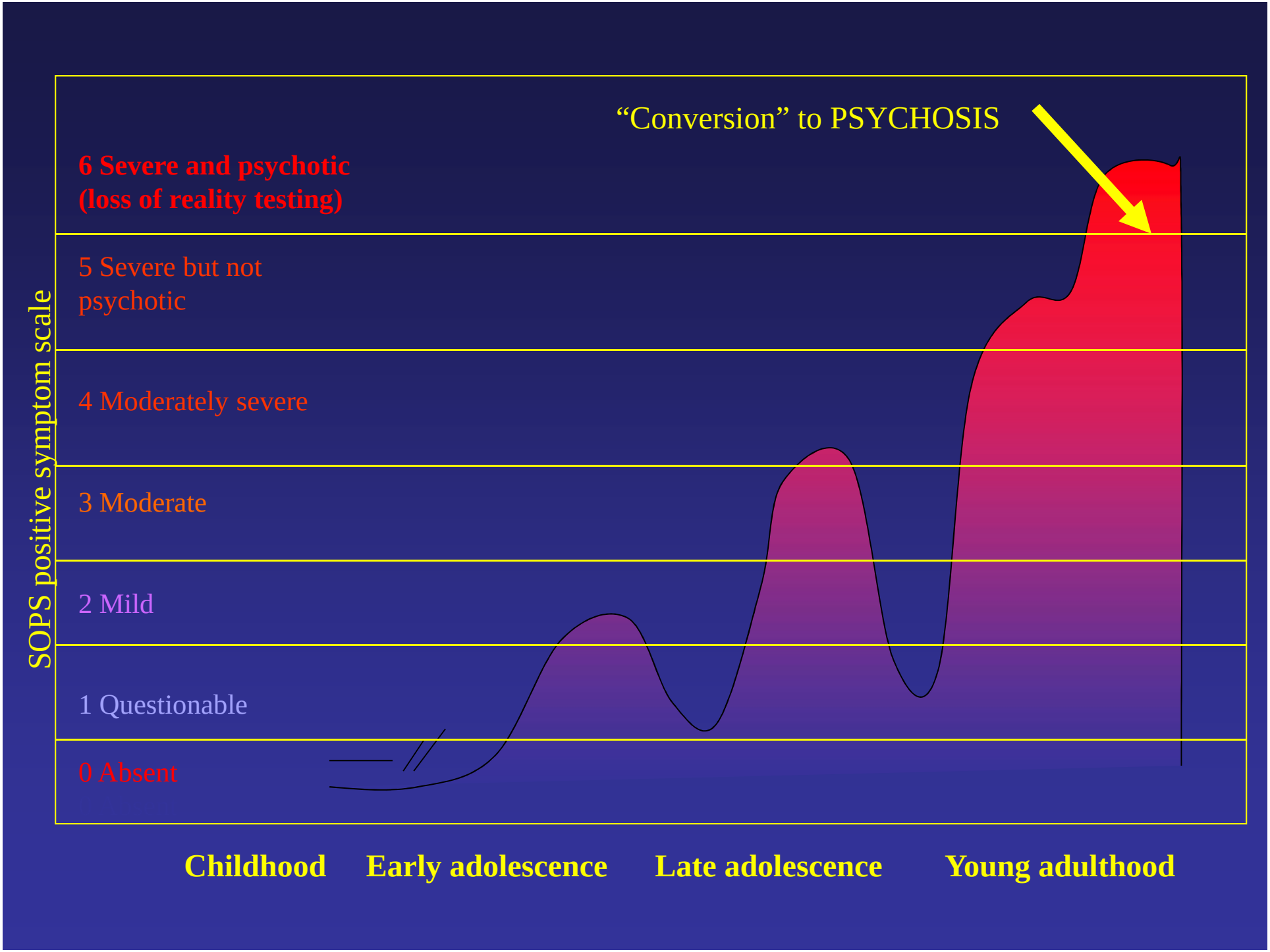
Ranges of onset age for common psychiatric disorders. Implications for assessment and treatment in adolescents – separating signal from noise

Paus, Keshavan and Giedd - Nature Neuroscience 2008

Epidemiological Studies of Rates of Psychotic Symptoms

- Psychotic symptoms (e.g., hallucinations, delusions) occur more often than previously thought, 5-15% of children studied from age 9, as well as teenagers.
- These symptoms do not always herald an impending psychotic disorder, but are associated with higher rates of transition to psychosis.
- Social and neurocognitive impairments are frequently present from childhood in the “premorbid period”.

From Cannon, Kelleher et al.


"Conversion" to PSYCHOSIS
6 Severe and psychotic
(loss of reality testing)
5 Severe but not
psychotic
4 Moderately severe
3 Moderate
2 Mild
1 Questionable
0 Absent
SOPS positive symptom scale
Childhood
Early adolescence
Late adolescence
Young adulthood

The CASES trajectory of symptom evolution.

Inattention,
Difficulty learning

Anxiety,
Uneasiness,
Flattened
Affect

Withdrawal
Day dreaming,
Solitary activities

Drop in grades,
Failure, Non-attendance

Attenuated
Psychotic
Symptoms

Cognitive

Affective

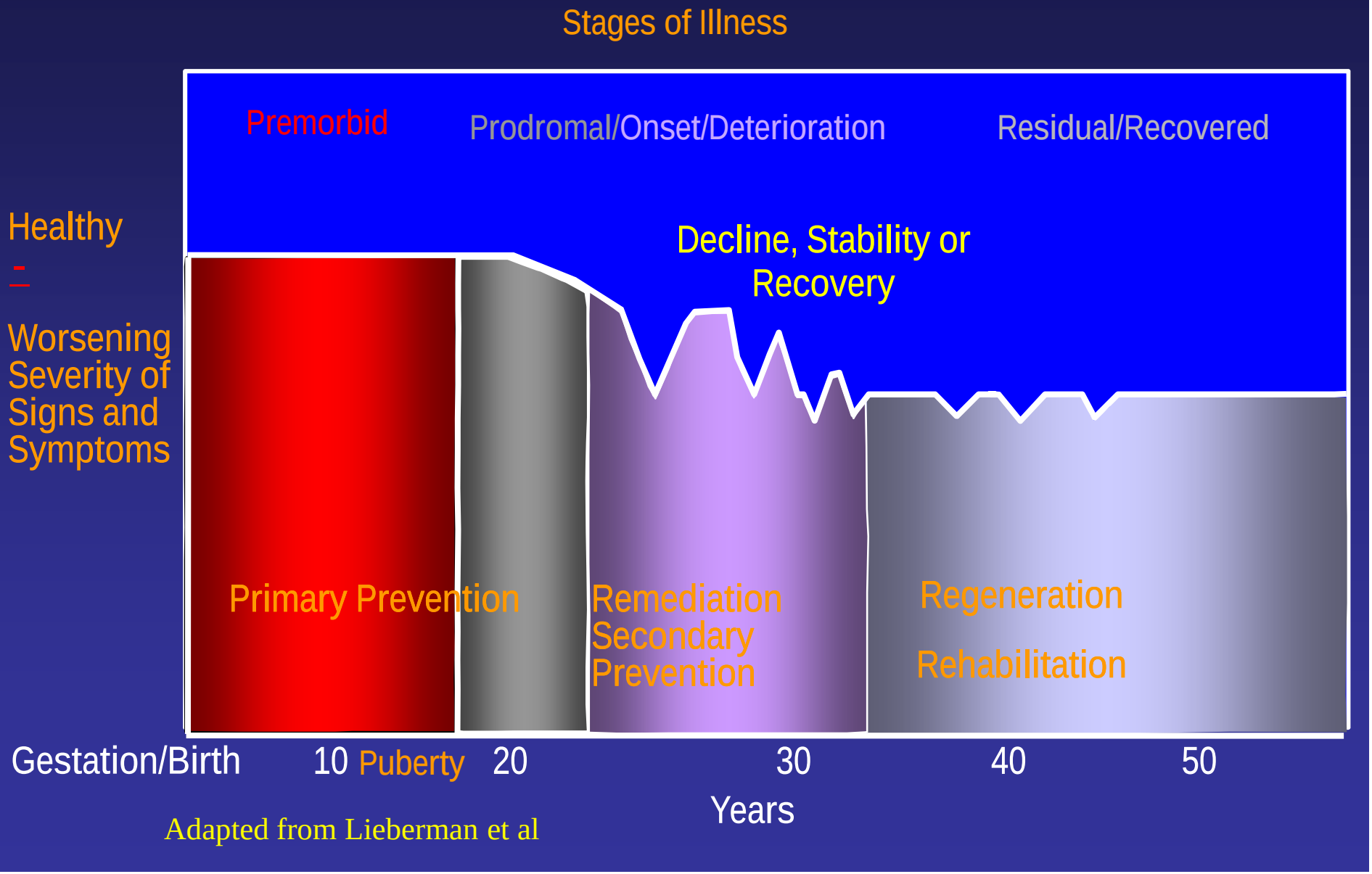
Social Isolation

Educational failure

Subthreshold Positive symptoms

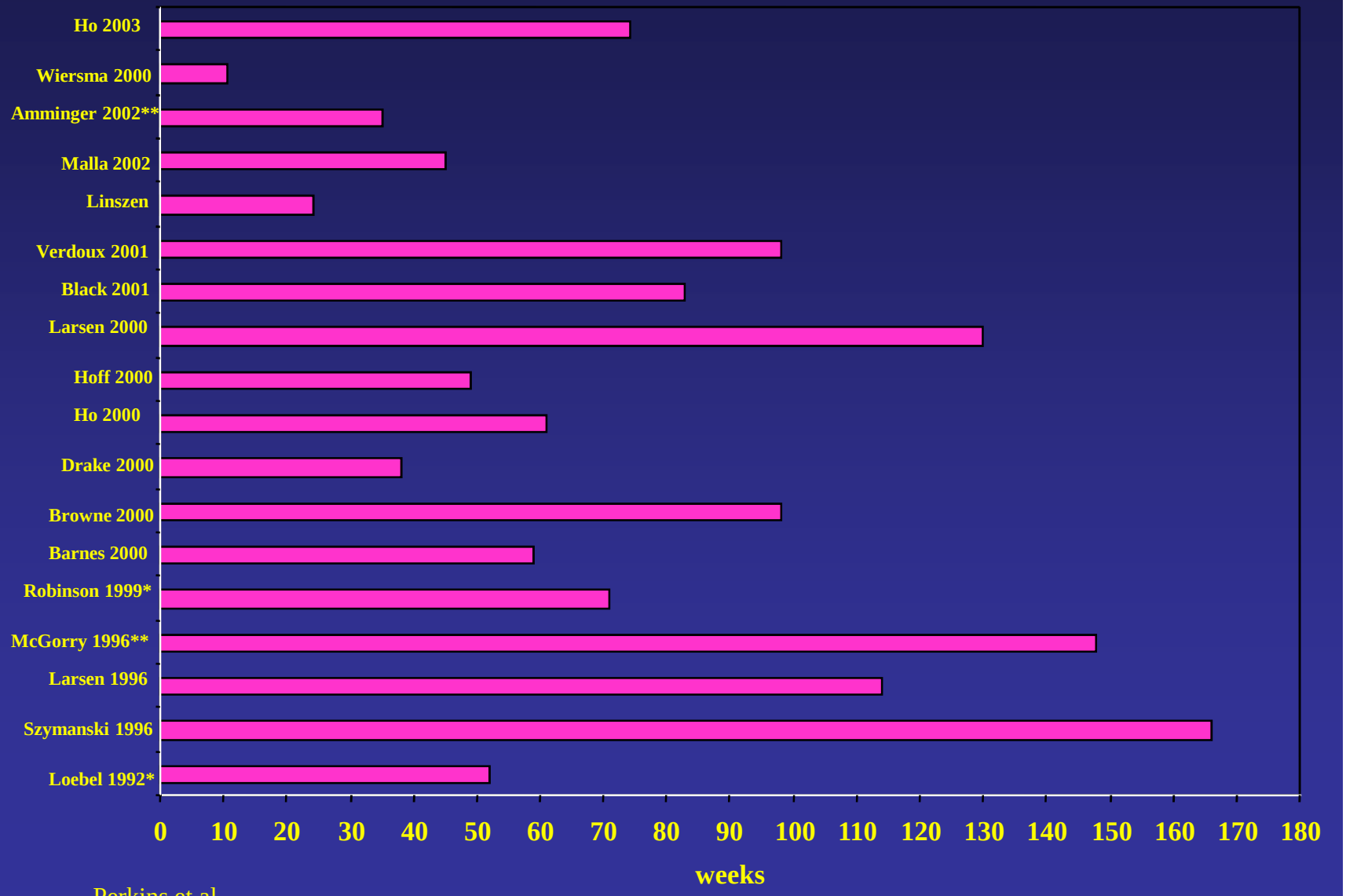
Adapted by Keshavan from model by Cornblatt

Developmental Evolution of Schizophrenia



Adapted from Lieberman et al

Reported mean duration of untreated psychosis (1-2 years)



Perkins et al.

Treatment & Duration of Untreated Psychosis

- Treatment outcome is better in first episode patients the sooner antipsychotic treatments are initiated (Wyatt, 1988).
- Time to remission is a function of prior untreated duration of psychosis (Lieberman JA, et al. *Neuropsychopharmacology. 1996;14(3 suppl):13S-21S*
- Cognitive Enhancement Therapy (CET) over 2 years improves neurocognition modestly, improves social cognition substantially, and reduces gray matter loss, in persons in the early phase of schizophrenia (Keshavan, Eack et al., Arch Gen Psychiatry, 2010)

Importance of Violence in the Untreated Early Psychosis Period

- Violence is significantly elevated in the first episode (FE) of psychosis especially if it is untreated.
- Violence in FE can be considered to be on a continuum from any violence (34.5%), to serious violence (16.6%) and severe violence leading to bodily harm to others (0.6%).
- While rare, homicides during first-episode psychosis occurred at a rate of 1.6 homicides per 1000, equivalent to 1 in 629 presentations.
- The annual rate of homicide after treatment for psychosis was 0.11 homicides per 1000 patients, equivalent to 1 homicide in 9090 patients with schizophrenia per year.

Importance of Violence in the Untreated Early Psychosis Period - 2

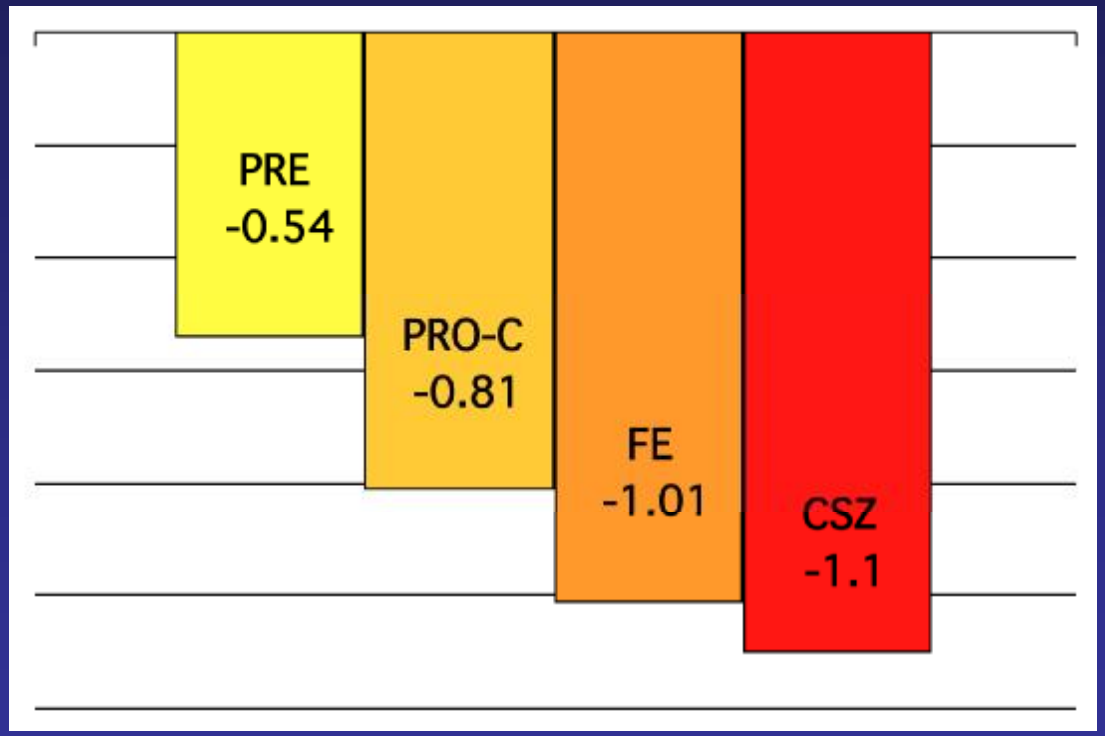
- The rate ratio of homicide in FE psychosis was 15.5 times the annual rate of homicide after treatment for psychosis!
- Violence of any severity was associated with involuntary treatment, a forensic history, hostile affect, symptoms of mania, illicit substance use, lower levels of education, younger age, male sex and the DUP. Serious violence was associated with a forensic history, DUP & total symptoms.
- Conclusion: Early treatment is crucial.

Clinical High Risk ("Prodromal") Syndromes

- Identified by a semi-structured interview
- Structured Interview for Prodromal Syndromes (SIPS) - McGlashan (Yale)
- Criteria of Prodromal Syndromes (COPS)
  - Attenuated positive symptom syndrome
  - Brief intermittent psychotic syndrome
  - Genetic risk + deterioration syndrome

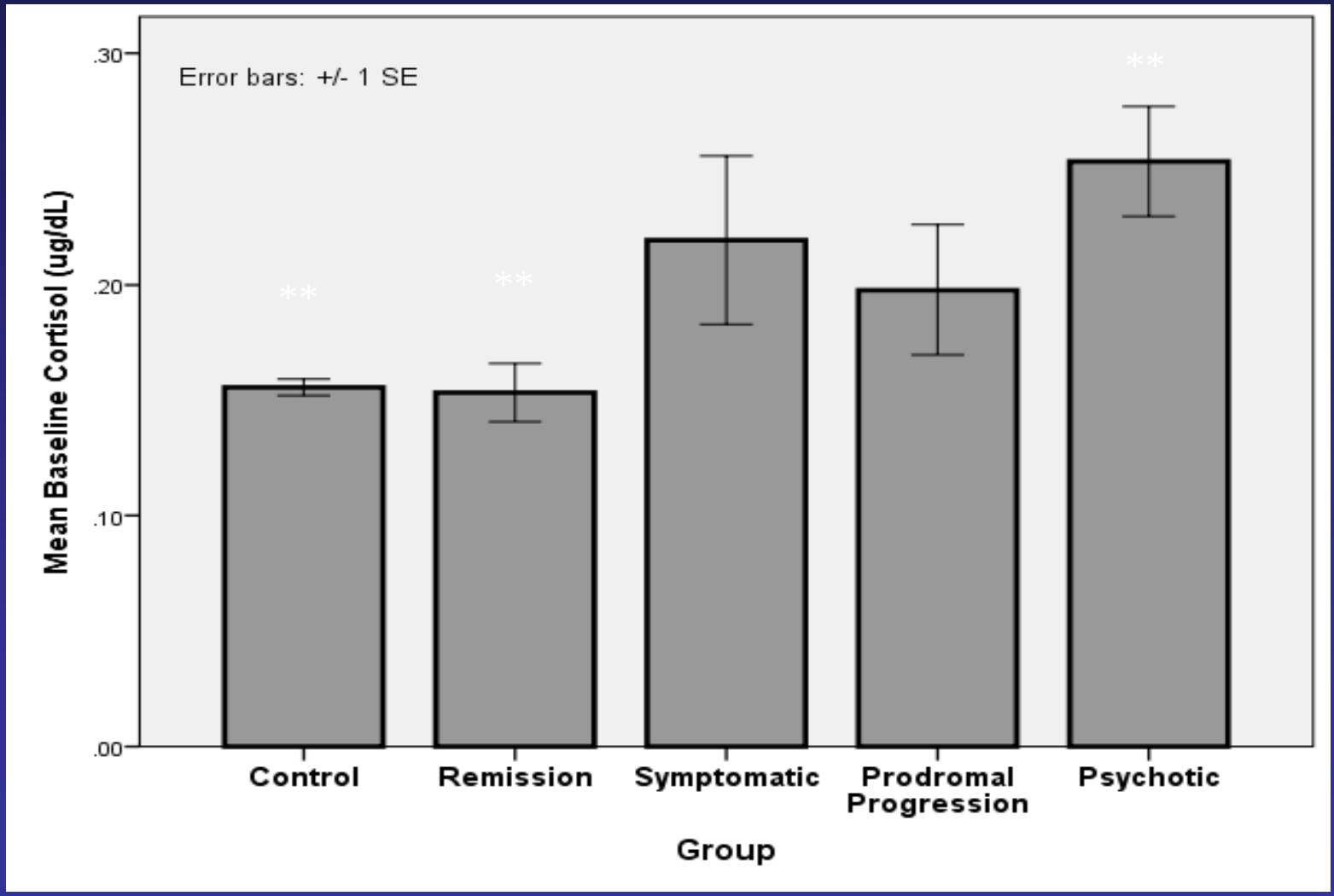
Miller et al., 2003

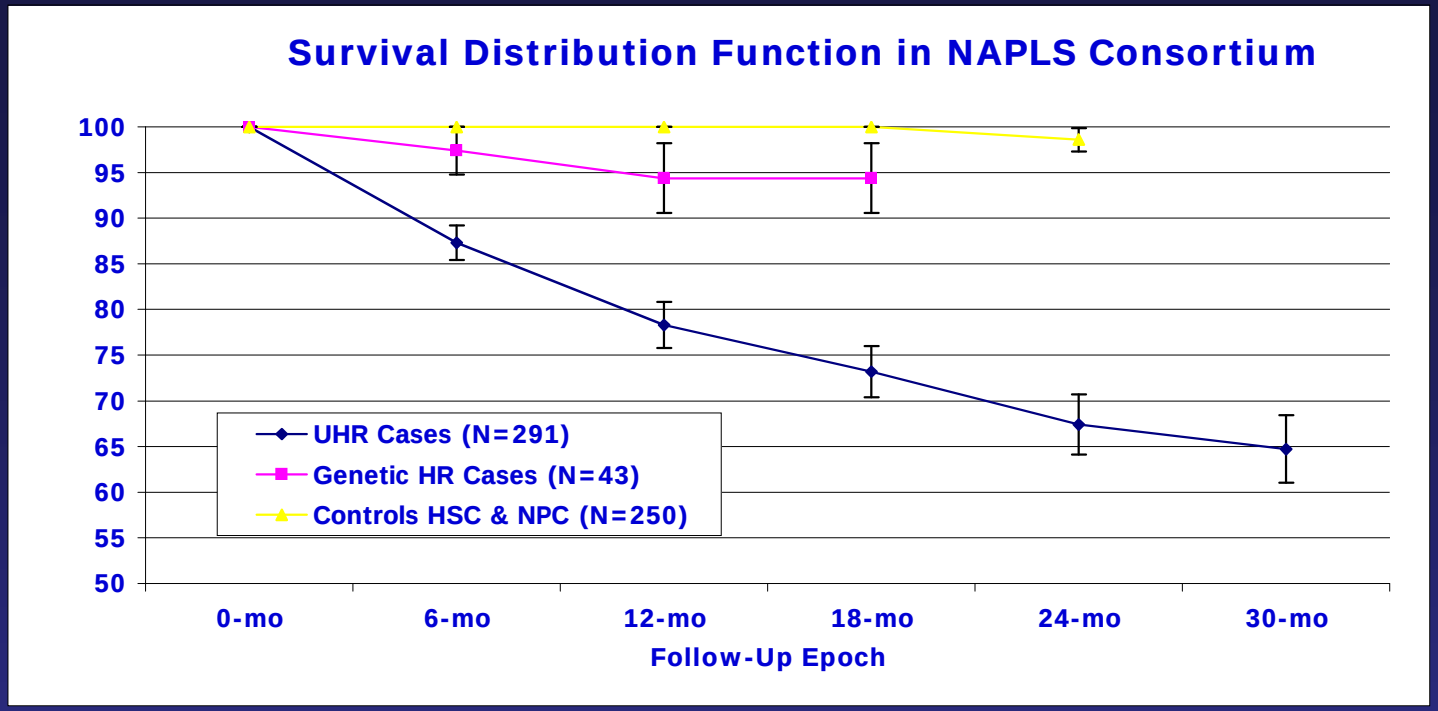
Cognition: IQ Deficits Already Present in Premorbid and Clinical High Risk Phases*



*Cross-sectional studies from 4 meta-analyses – L. Seidman
PRE: Woodberry, Giuliano & Seidman, 2008; PRO-C: Giuliano et al. 2012; FE: Mesholam-Gately, Giuliano, et al. 2009; CSZ: Heinrichs & Zakzanis, 1998

Mean Baseline Cortisol by Diagnostic Outcome Group (Walker et al)





- Decelerating - 5 times lower at 30 months than at 6 months (but not fully asymptotic)
- SIPS/SOPS criteria thus sensitive to imminent risk
- Provides empirical basis on which to time interventions
- Cannon et al (AGP 2008)

Interval	Incidence Rate	
	Per Epoch	Cumulative
BL - 6mo	12.7%	12.7%
6 - 12 mo	9.0%	21.7%
12 - 18 mo	5.1%	26.8%
18 - 24 mo	5.8%	32.6%
24 - 30 mo	2.7%	35.3%

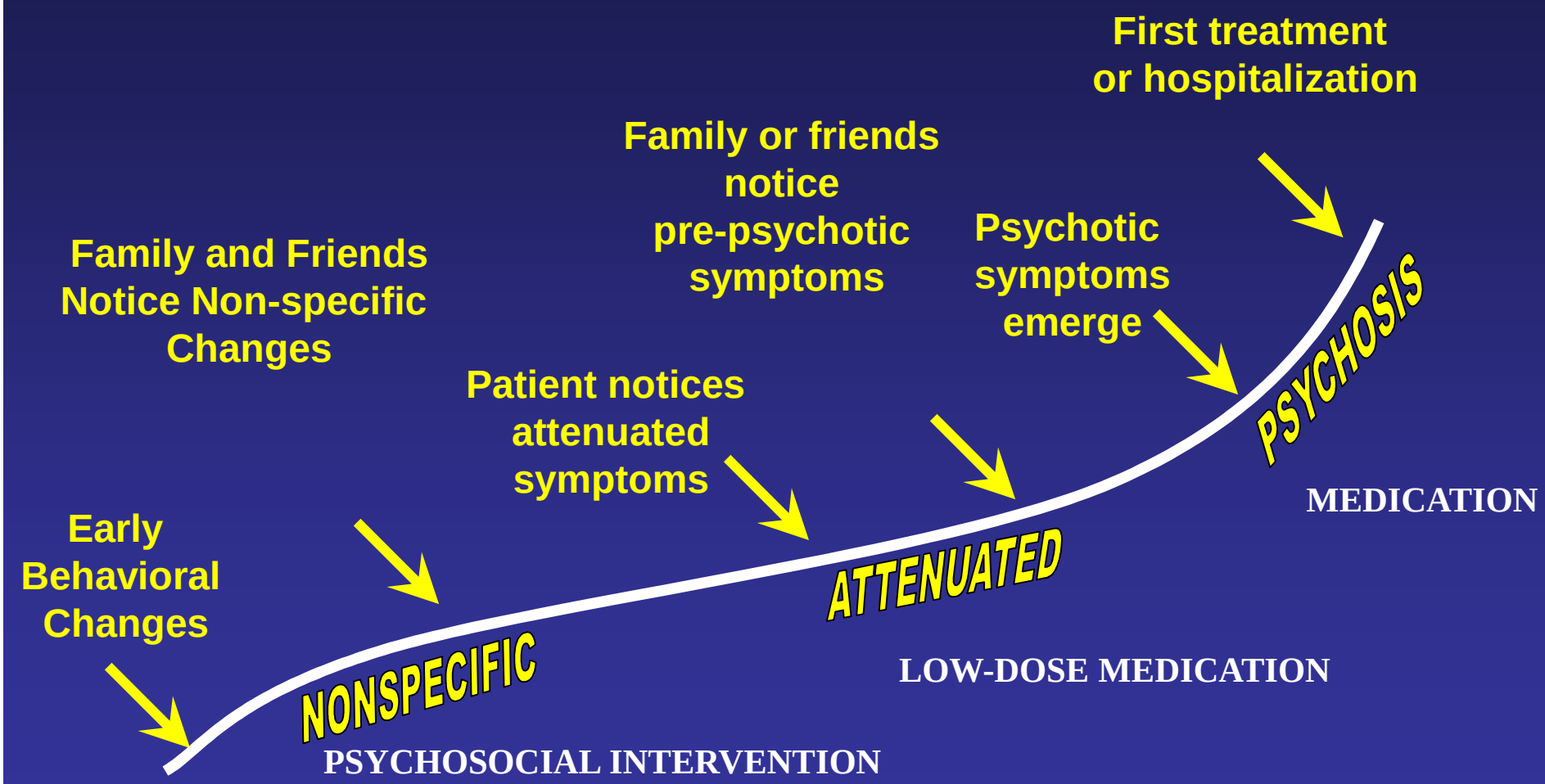
Treatment Studies of the Clinical High Risk Period are Promising

- Some indications that antipsychotic medications may attenuate the symptoms or delay the onset of Psychosis (McGorry, McGlashan studies).
- Cognitive Behavior Therapy (CBT) may do the same as above (Morrison, Addington).
- Omega-3 has one very promising study.
- More research is clearly needed but the results so far suggest a 10% conversion rate to psychosis in treated subjects compared to 30% in untreated. The data are promising. Thus far, consensus in field is not to use anti-psychotics unless other treatments ate ineffective.

Early Intervention: Why? To Improve Outcome and Reduce Suffering

- Greatest risk of deterioration during first 1-5 years of illness.
- Prevent decline – cognitive, social, vocational.
- Reduce chance of violence to self or others - higher rates in schizophrenia of homicides, violent suicide attempts, and self harm such as major self mutilation, in untreated first-episode psychosis compared to later in the illness.
- Critical period for effective intervention: Prodrome & early psychosis: reduce duration of untreated psychosis (DUP), or even better, reduce clinical high risk period.

Intervention Strategies



Adapted from Cornblatt et al

Barriers to Care in Prodrome & 1st Episode Psychosis

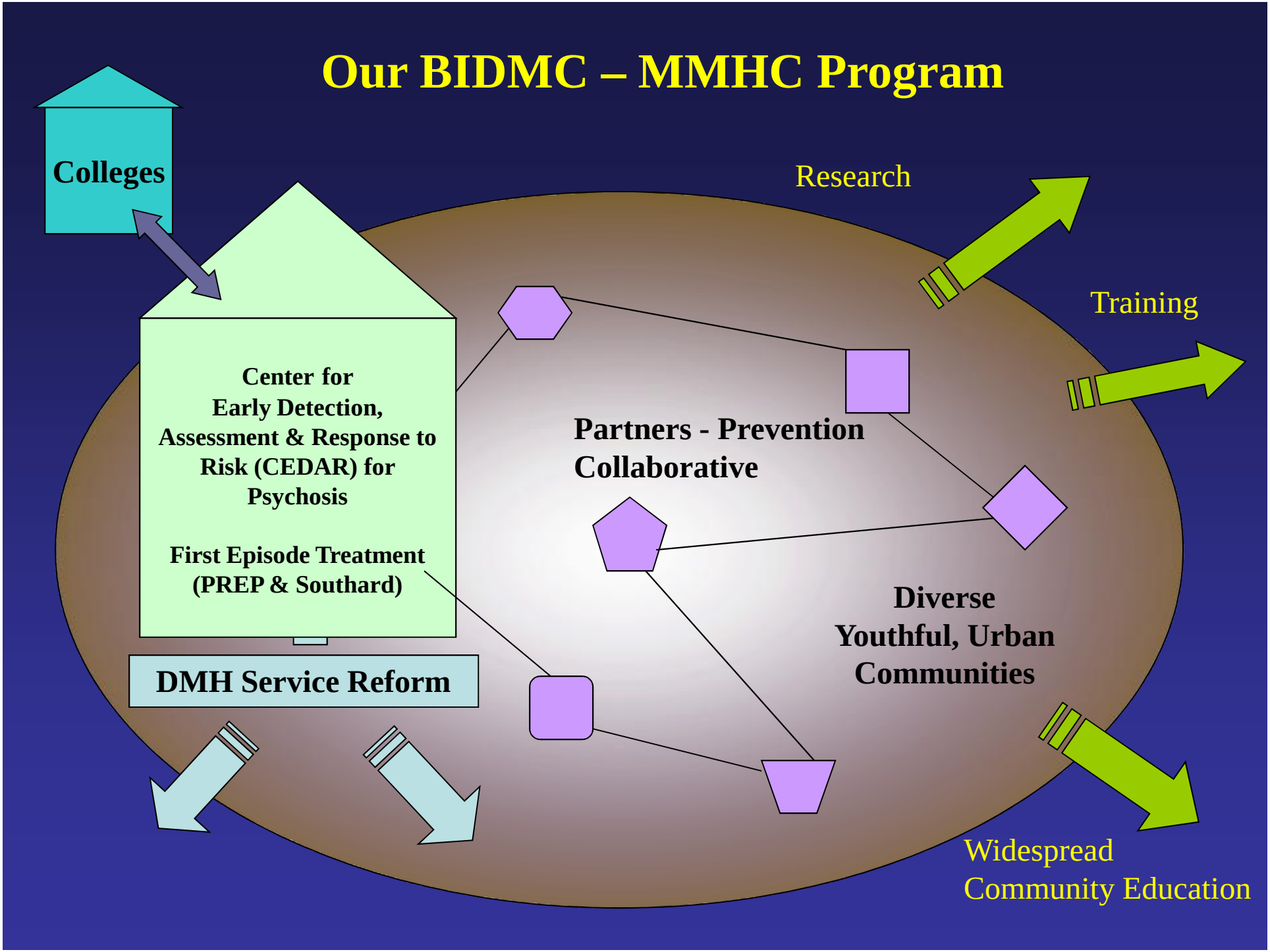
- Denial on part of patient and family, stigma.
- Poor recognition of symptoms by others before very late in disorder – low mental health literacy.
- Limited knowledge on part of mental health providers.
- Lack of access to treatment – very limited trained workforce and very limited services.
- Few programs in U.S ~ N=10-15.
- Child-Adult chasm. Many patients presenting with symptoms in mid-late teens.
- Need financial buy-in for early intervention in psychiatry.

Summary - 1

- Most psychotic illnesses begin in teens to 20's.
- Current mental health services intervene late.
- There is a service gap at a critical period – adolescence.
- Need for care precedes psychotic diagnosis.
- Hospitalization can be traumatic. Early intervention may avert a hospitalization, minimize its traumatic impact, or may help provide continuity of care with outpatient clinician.
- The untreated psychotic period is a period of greatest risk to self (suicide & self-harm) and to others ranging from mild to severe, including homicide.

Summary - 2

- The earlier psychosis is detected and treated, the better the prognosis.
- New advances have helped us to reliably predict who may be at imminent risk.
- Early treatments may delay, prevent, or mitigate severity of onset.
- Community awareness of warning signs and early referral are critical to reach those who can benefit.
- Early intervention may prevent cognitive loss, violence to self or others and enhance functioning.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