Certificate Course on Mental Health 2016

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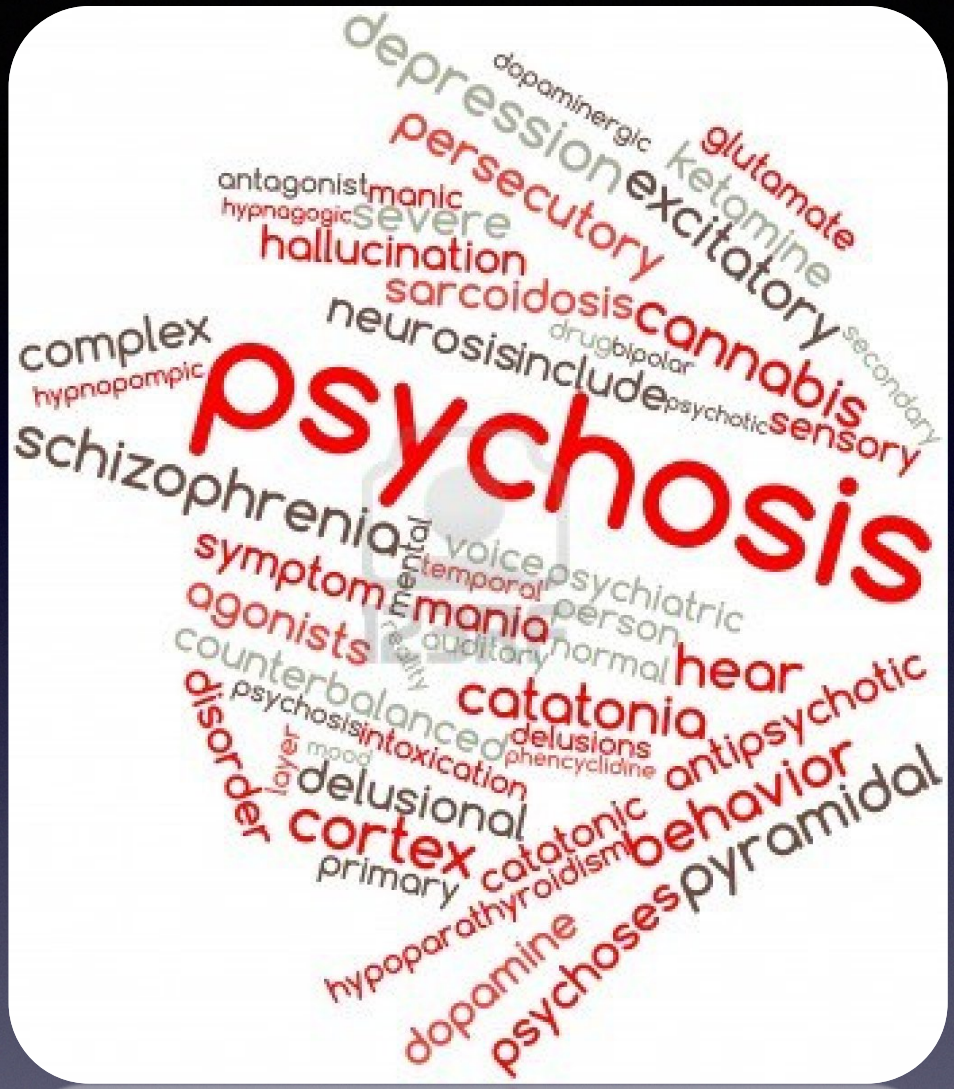
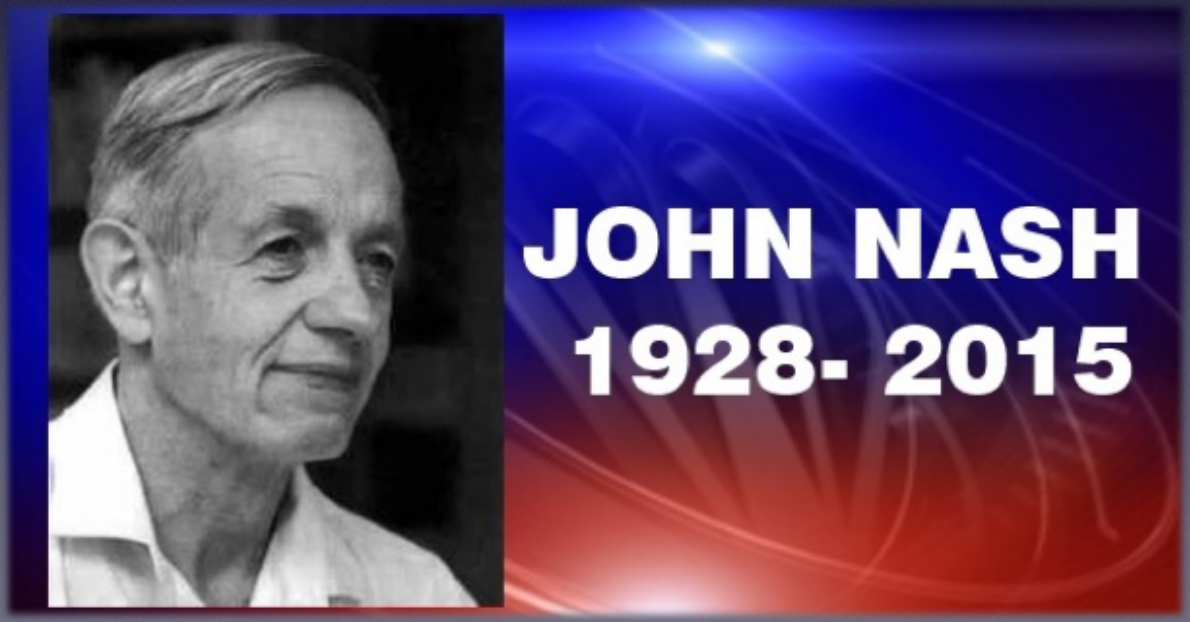
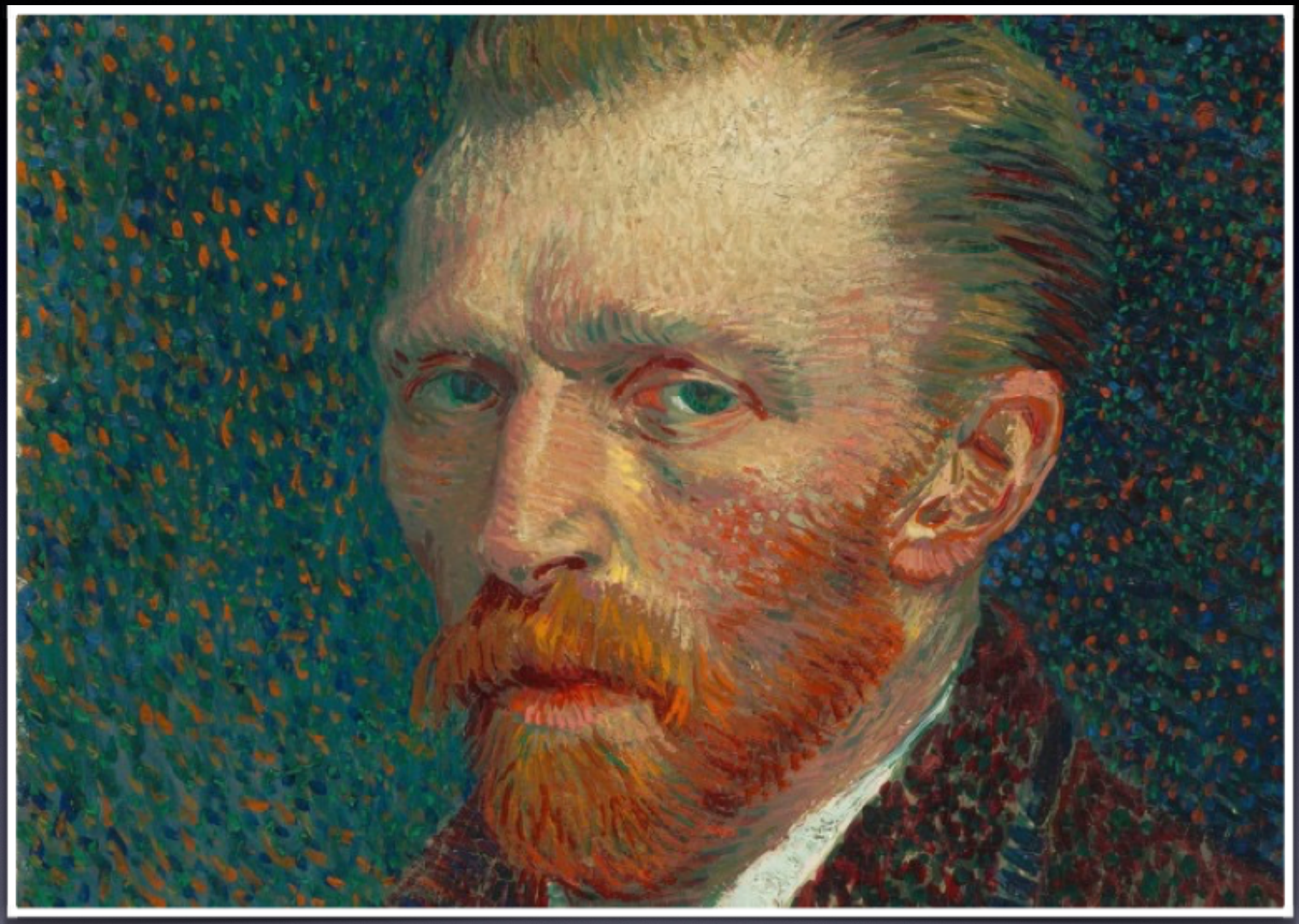


Outline

- Understanding
- Onset and Course
- Early recognition
- Intervention strategies

Misconceptions


JOHN NASH
1928- 2015



- PSYCHOSIS (FROM THE GREEK ΨΥΧΗ PSYCHE, "MIND/SOUL", AND -ΩΣΙΣ -OSIS, "A NORMAL CONDITION OR DERANGEMENT")

Ernst Von Feuchtersleben

PSYCHOSIS

- INSIGHT IS ABSENT
- JUDGEMENT & REASONING IS IMPAIRED
- REALITY CONTACT IS LOST
- DELUSIONS USUALLY PRESENT
- TRUE HALLUCINATIONS USUALLY PRESENT
- CHANGE IN PERSONALITY MAY BE THERE

NEUROSIS

- INSIGHT IS PRESENT
- JUDGEMENT & REASONING IS INTACT
- REALITY CONTACT IS PRESENT
- DELUSIONS ARE ABSENT
- TRUE HALLUCINATIONS ARE USUALLY ABSENT
- CHANGE IN PERSONALITY IS USUALLY ABSENT.

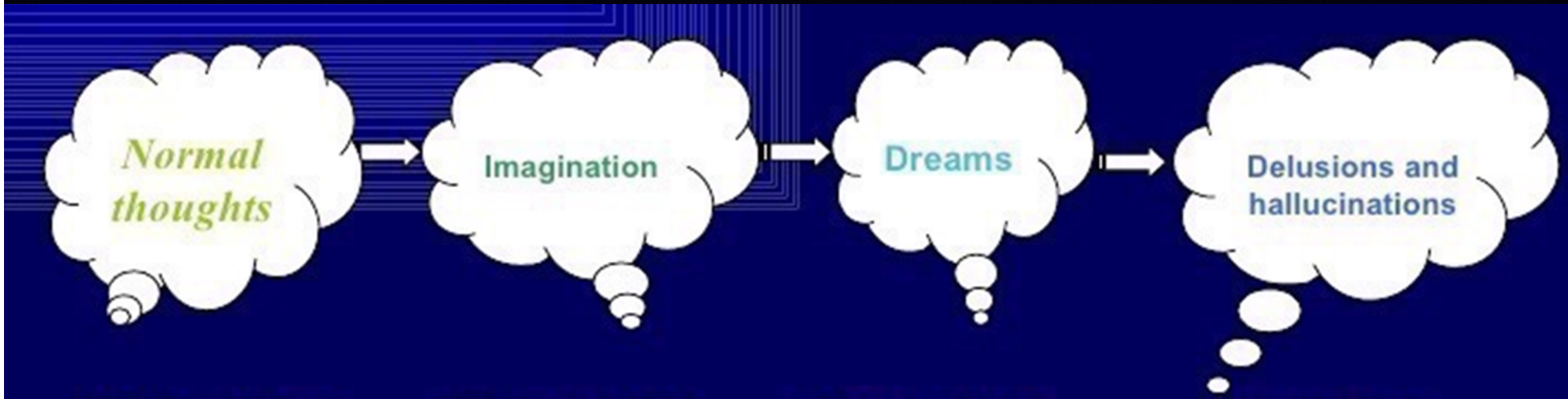
Symptoms

- **Hallucination** - hearing , seeing or feeling things that do not exit, perceptions without external stimuli
- **Delusions** - firmly held beliefs that are not supported by cultural or religious context, and there is a clear evidence that they are false
- **Disorganized** thoughts, speech and behavior
- **Catatonia**
- **Negative symptom** - flattening of affect, loss of volition, social withdrawal, poverty of speech

Hallucination

- 5 senses - sight , sound, smell, taste and touch
- Two thirds of schizophrenia - auditory hallucinations
- Several voices, negative comments
- Running commentary - what the patient is doing
- Repeating what the patient is thinking

Delusion
Continuum of Experience



I'd like to have more money…

What would it be like if I won the lottery….I'd definitely buy a boat…a blue ski boat with a wakeboard….

I just woke up and for a moment I really thought I'd won the Powerball - $18M!

I am really a millionaire, but a group of Satanists is trying to take all my money…

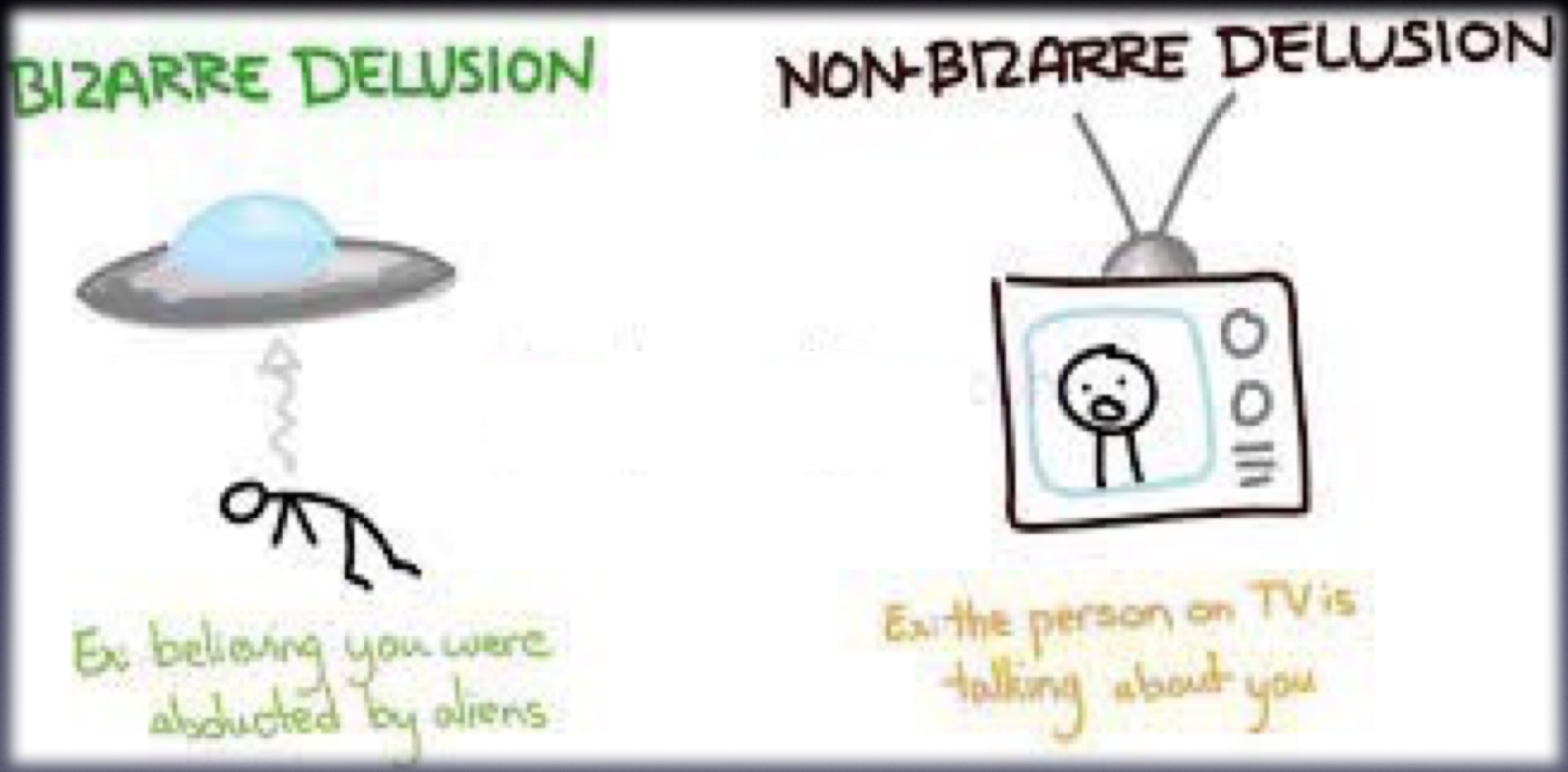
Persecutory Delusions

- Unduly suspicious of individuals or organizations, believing them to be plotting to cause them harm

- Feels Frightened, unusual behavior to avoid things, staying out of a room with certain devices, believing them to be controlling thoughts; or locking up the front door with excessive locks

- Delusion of grandeur
- Delusion of reference
- Delusion of control
- Nihilistic delusion
- Somatic delusion
- Thought broadcasting
- Thought withdrawal
- Thought insertion

Delusion

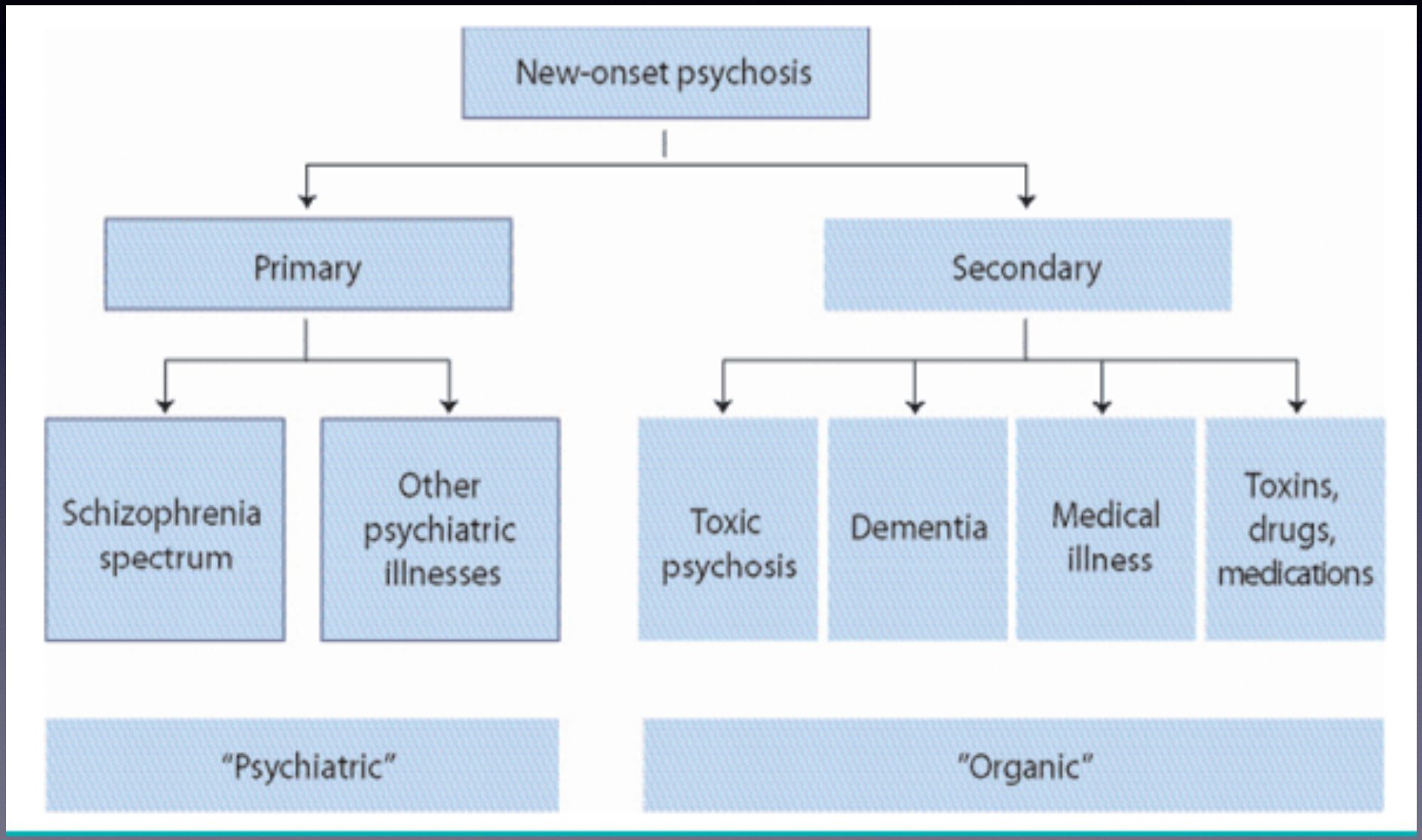


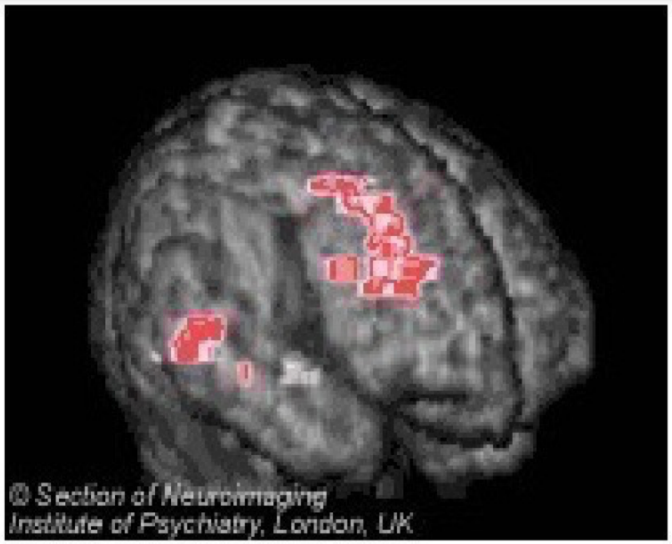
Bizarre delusions – impossible, e.g. contrary to the Law of Physics

Negative Symptoms

- Lack of motivation
- Little interest in having hobbies
- Lack of eye contact
- Reduced range of emotions
- Not saying much
- Tendency not to interact with other people
- Slow movement
- Changes in body language
- Change in sleep pattern
- Poor grooming or hygiene
- Difficulty in planning and setting goals
- Little interest in sex

Differential Diagnosis of New-Onset Psychosis





fMRI scan of Schizophrenic patient having an auditory hallucination

- Brain tumor or cyst
- Dementia (Alzheimer's disease)
- Neurological illness, such as Parkinson’s disease and Huntington’s disease
- HIV and other infections that may affect the brain
- Some types of epilepsy
- Stroke

Secondary to Other Disorders or Diseases

Psychiatric Illness - Diagnoses

- Schizophrenia
- Schizoaffective disorder and other subtypes of schizophrenia
- Persistent delusional disorder
- Acute and transient psychotic disorder
- Bipolar disorder
- Major depressive disorder with psychotic features
- Postnatal psychosis

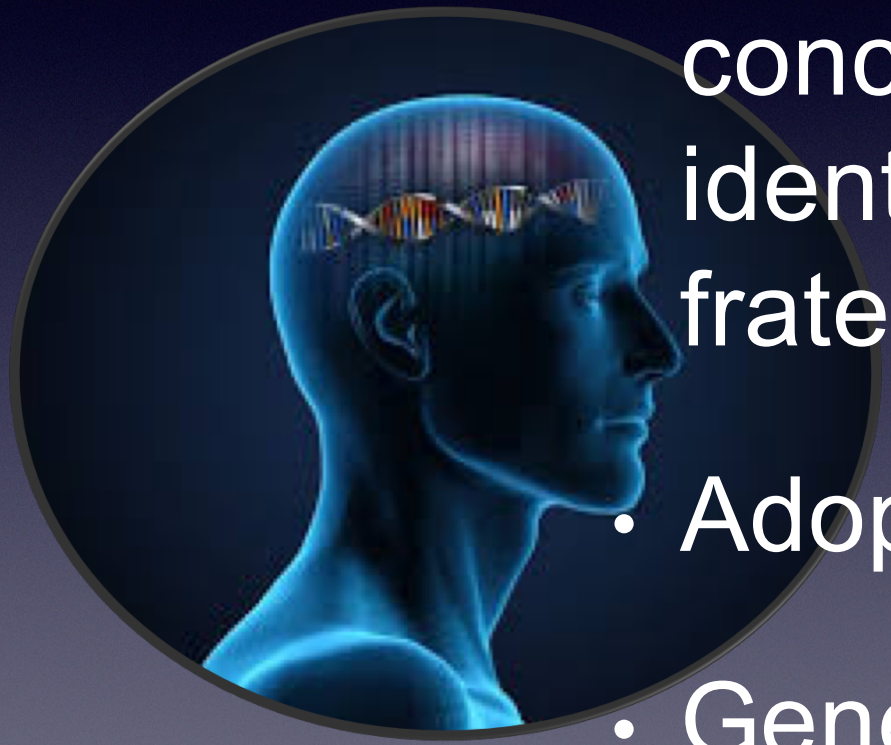
- 3 in 100 - psychosis in a lifetime
- Onset - mostly young adult
- Any age, gender, ethnicity, socioeconomic status
- Causes - mostly unknown, but no one's fault

- Symptoms - treatable
- Recovery from a first episode of psychosis - possible
- Early intervention - better prognosis
- Early experience - confusing and traumatic

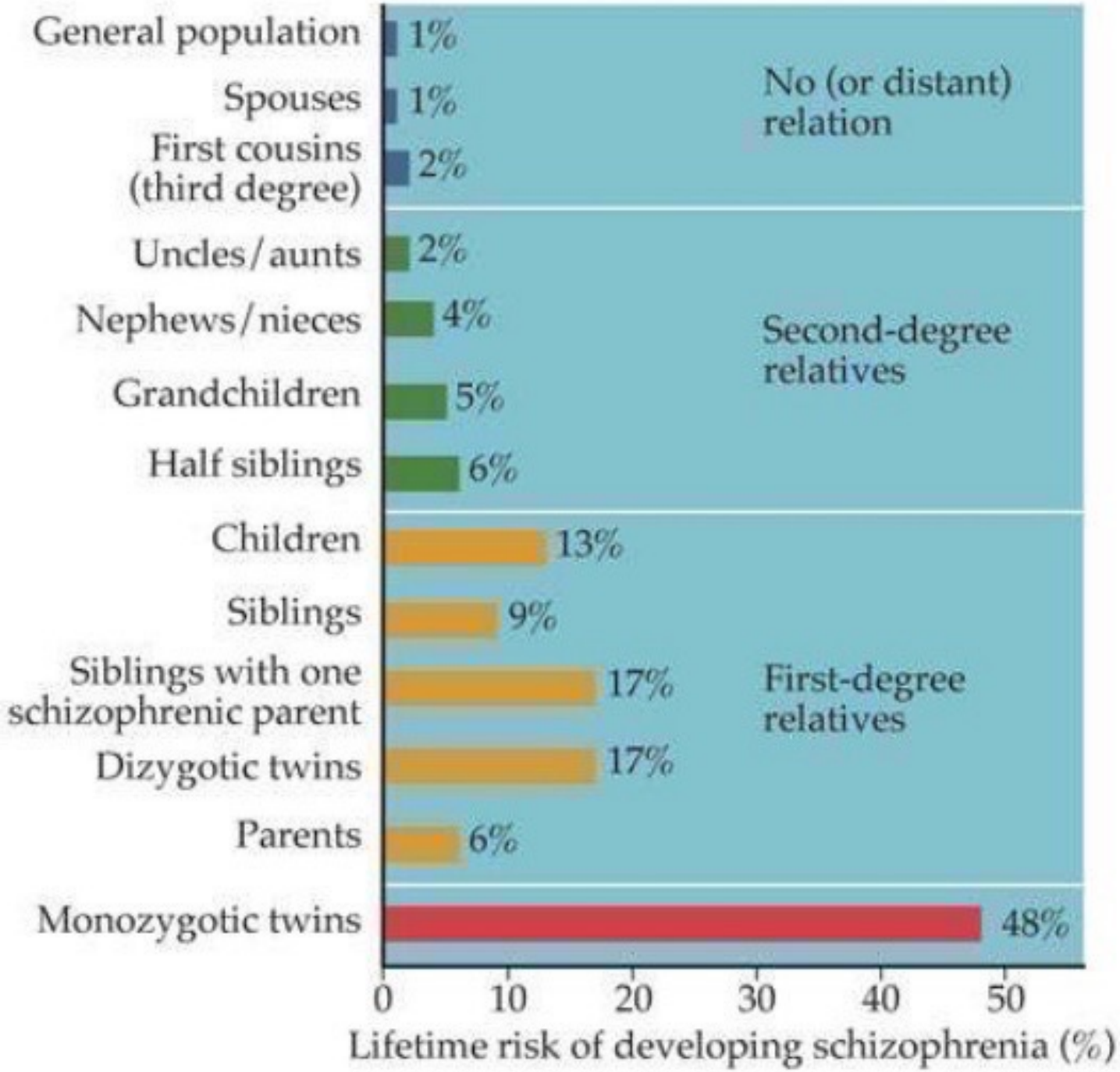
WHAT CAUSES iT?

- Exact cause - not entirely clear
  - ✓ Genetic predisposition
  - ✓ Neurotransmitter hypothesis
  - ✓ Brain disorder (Neurological and-or Developmental disorder)
  - ✓ Vulnerability stress model

Genetic Predisposition



- Twin Studies – higher concordance rate fro identical twins VS fraternal twins
- Adoptive Studies
- Gene Mutations – the D4 receptor gene



BIOLOGICAL PSYCHOLOGY, Fourth Edition, Figure 16.1 © 2004 Sinauer Associates, Inc.

Neurotransmitter Hypothesis
Dopamine Hypothesis

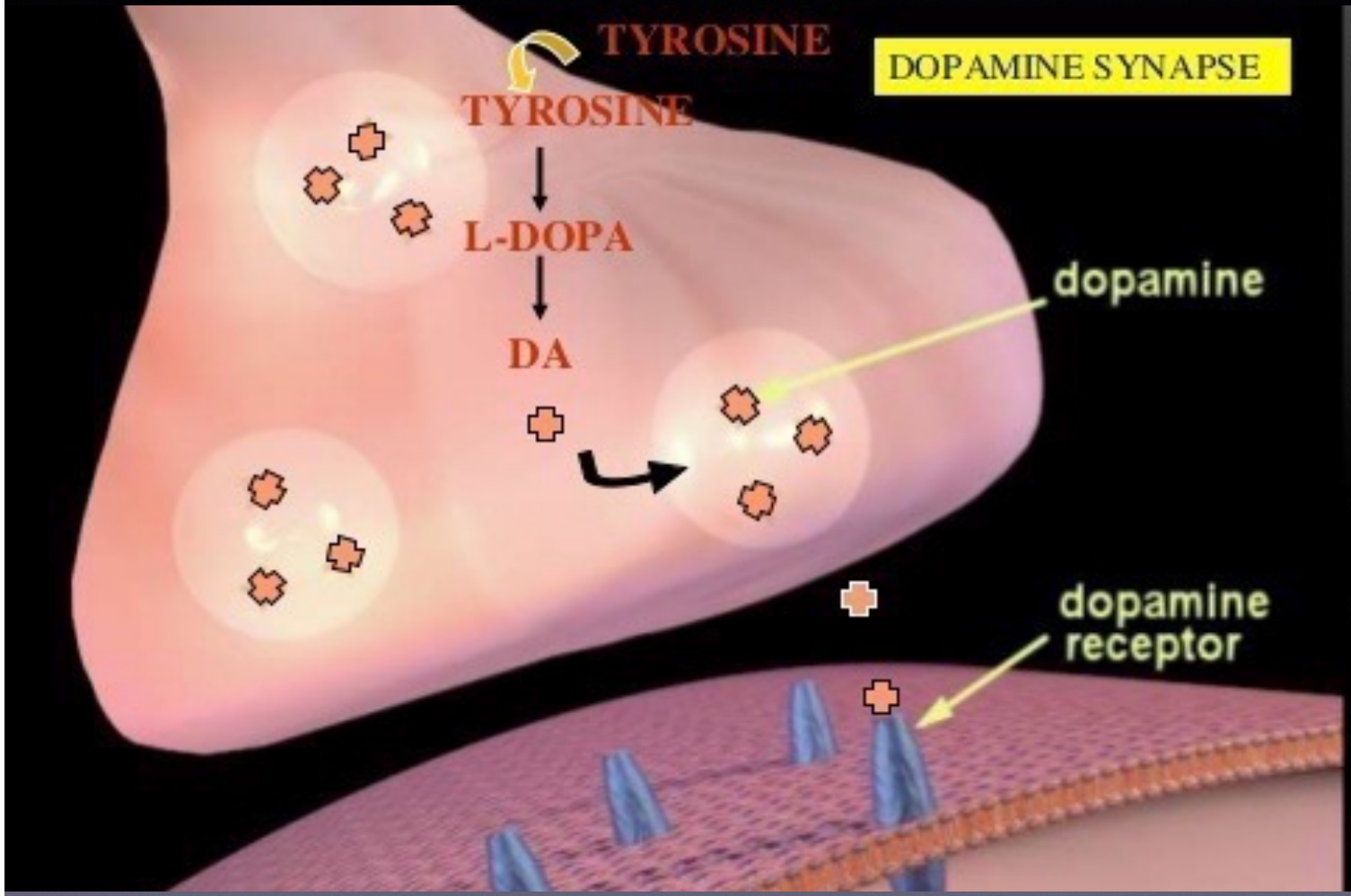
Dopamine Neurotransmission Dysregulation

- Dopamine overstimulation in limbic system

  Emotional over-arousal, excitement and confusion

- Inadequate neurotransmitter activities in frontal cortex

  Impairment in thinking, judgement and logical action



DOPAMINE RECEPTORS

There are at least five subtypes of receptors:

Receptor

- D1
- D2
- D3
- D4
- D5

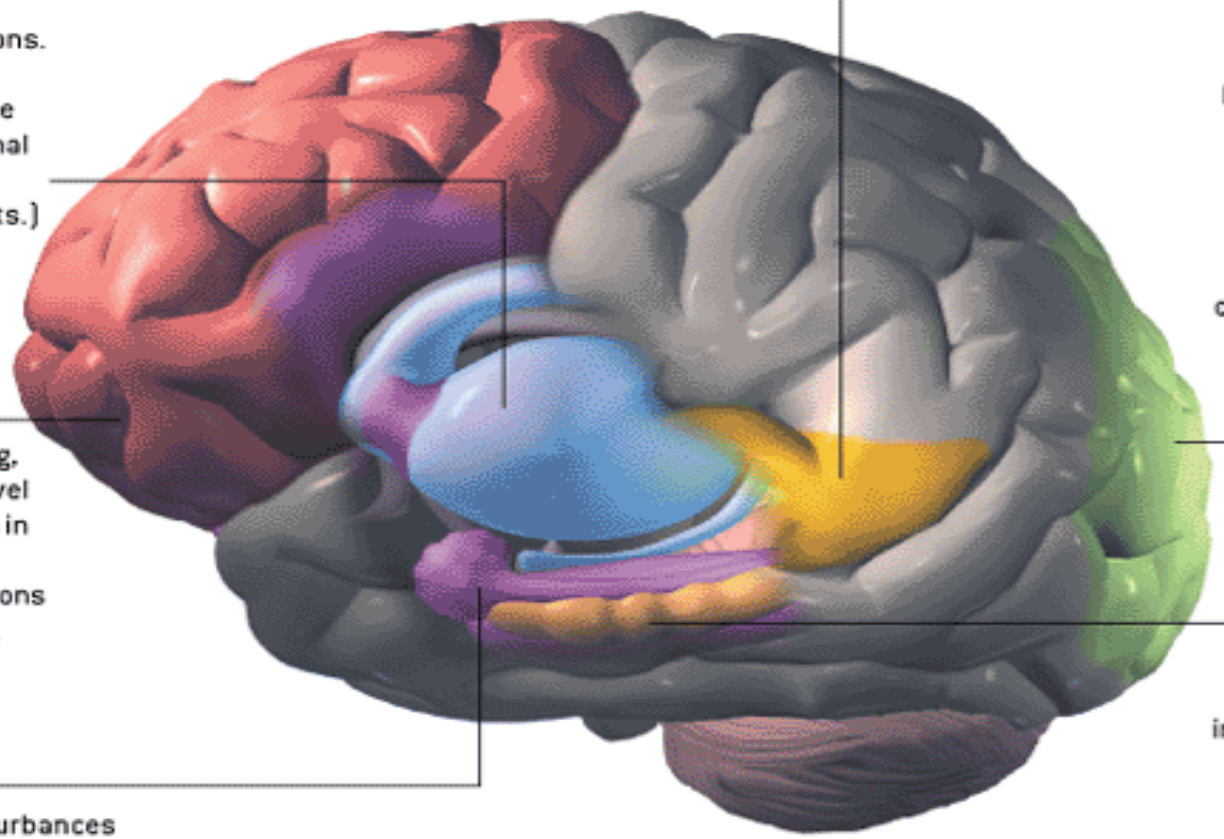
- The Dopamine Hypothesis
  - Drugs that increase dopamine (agonists)
    - Result in schizophrenic-like behavior
  - Drugs that decrease dopamine (antagonists)
    - Reduce schizophrenic-like behavior
  - Examples – Neuroleptics, L-Dopa for Parkinson's disease
  - Current theories – Emphasize many neurotransmitters (Serotonin, GABA, & Glutamate) also have a role

THE BRAIN IN SCHIZOPHRENIA

MANY BRAIN REGIONS and systems operate abnormally in schizophrenia, including those highlighted below. Imbalances in the neurotransmitter dopamine were once thought to be the prime cause of schizophrenia. But new findings suggest that impoverished signaling by the more pervasive neurotransmitter glutamate—or, more specifically, by one of glutamate's key targets on neurons (the NMDA receptor)—better explains the wide range of symptoms in this disorder.

BASAL GANGLIA
Involved in movement and emotions and in integrating sensory information. Abnormal functioning in schizophrenia is thought to contribute to paranoia and hallucinations. (Excessive blockade of dopamine receptors in the basal ganglia by traditional antipsychotic medicines leads to motor side effects.)

AUDITORY SYSTEM
Enables humans to hear and understand speech. In schizophrenia, overactivity of the speech area (called Wernicke's area) can create auditory hallucinations—the illusion that internally generated thoughts are real voices coming from the outside.



OCCIPITAL LOBE
Processes information about the visual world. People with schizophrenia rarely have full-blown visual hallucinations, but disturbances in this area contribute to such difficulties as interpreting complex images, recognizing motion, and reading emotions on others' faces.

FRONTAL LOBE
Critical to problem solving, insight and other high-level reasoning. Perturbations in schizophrenia lead to difficulty in planning actions and organizing thoughts.

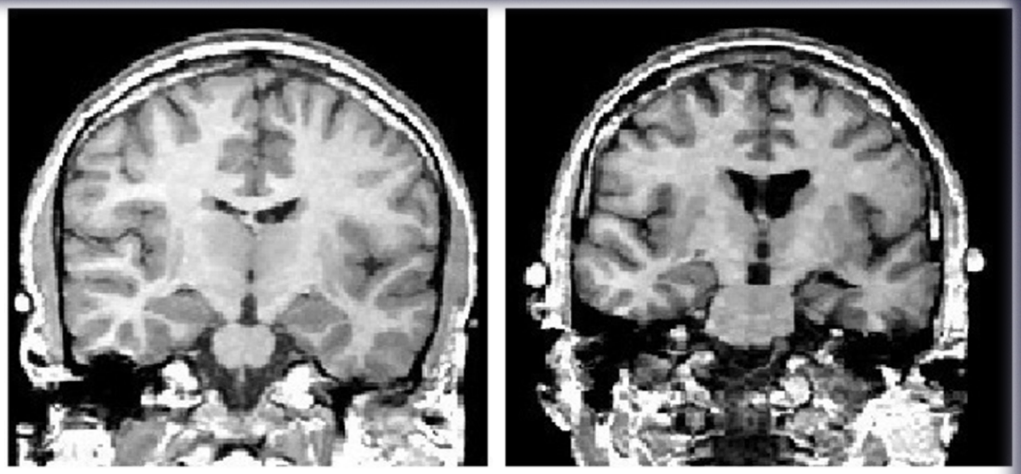
HIPPOCAMPUS
Mediates learning and memory formation, intertwined functions that are impaired in schizophrenia.

LIMBIC SYSTEM
Involved in emotion. Disturbances are thought to contribute to the agitation frequently seen in schizophrenia.

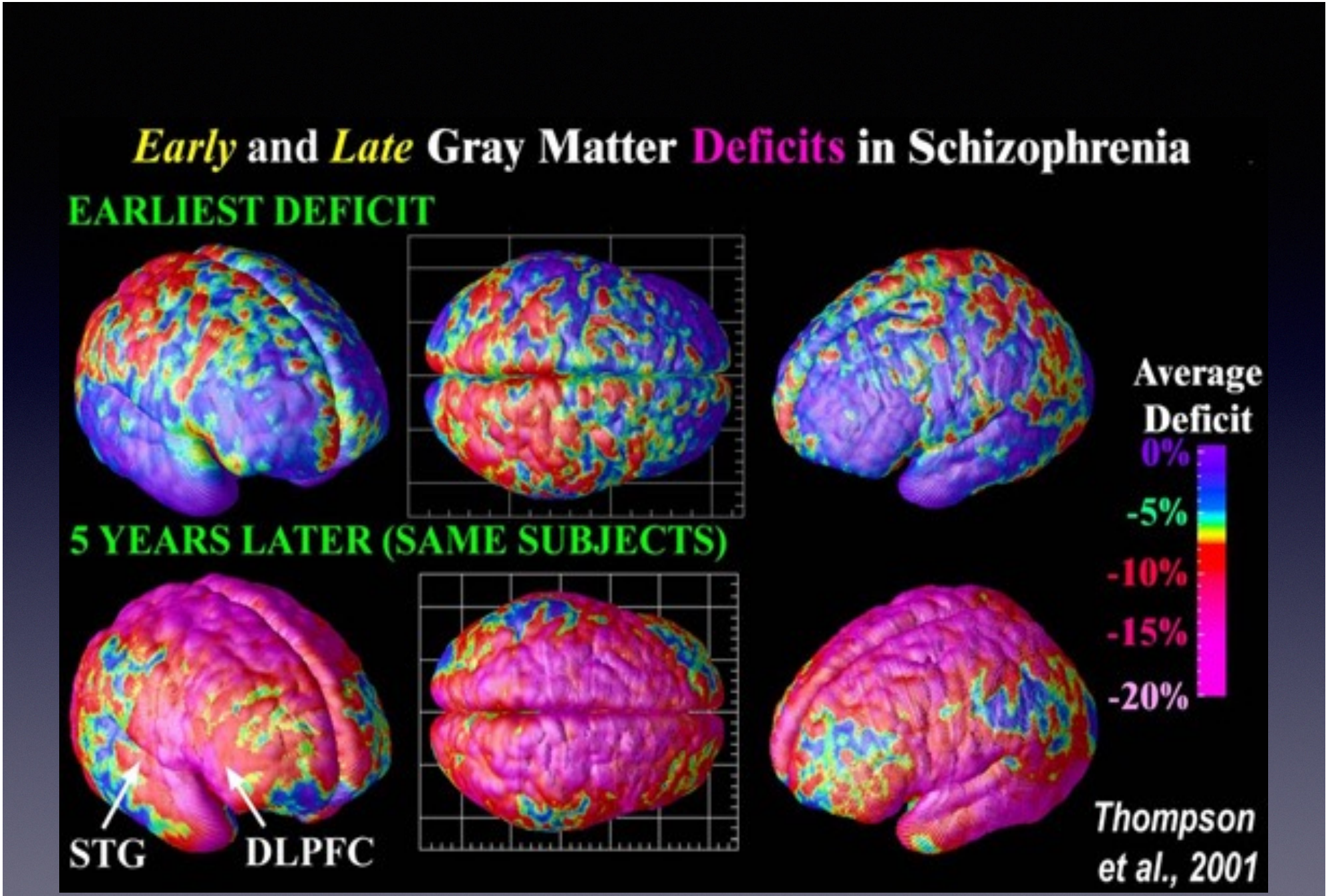
ALFRED T. KAMAJIAN

Neuroimaging Studies

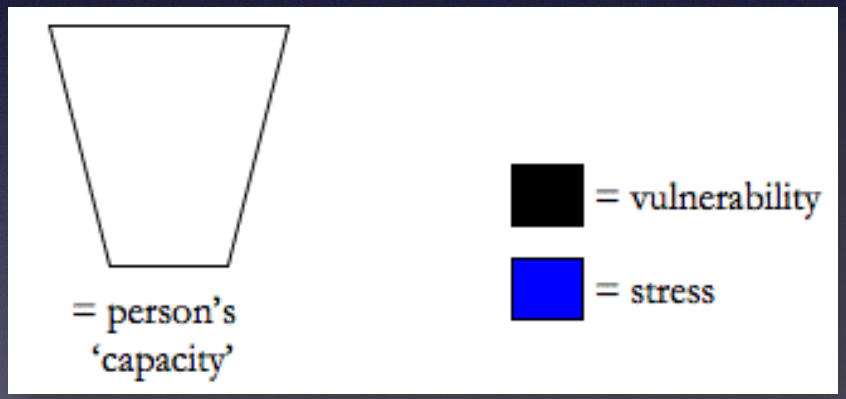
- Less activity in the prefrontal cortex for patients with psychotic disorders vs. control subjects
- Larger ventricles for schizophrenic patients vs. controls
- Stronger activity in right hemisphere during language production and interpretation.

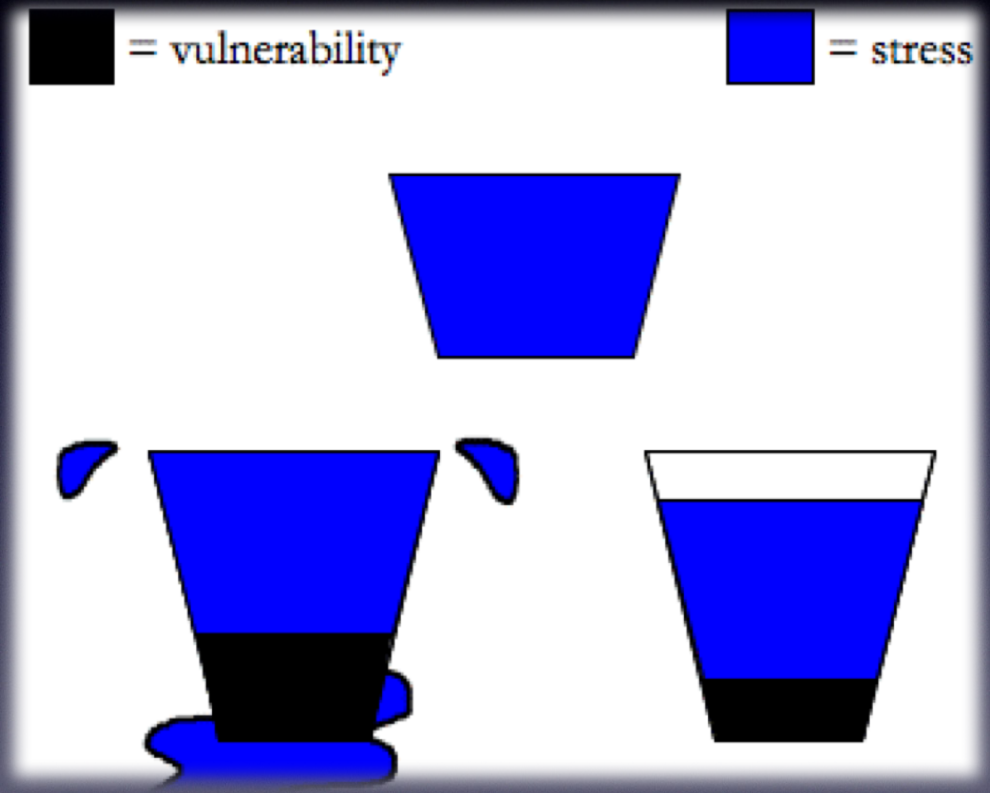


Left: Brain of a healthy control subject
Right: Brain of a schizophrenic patient

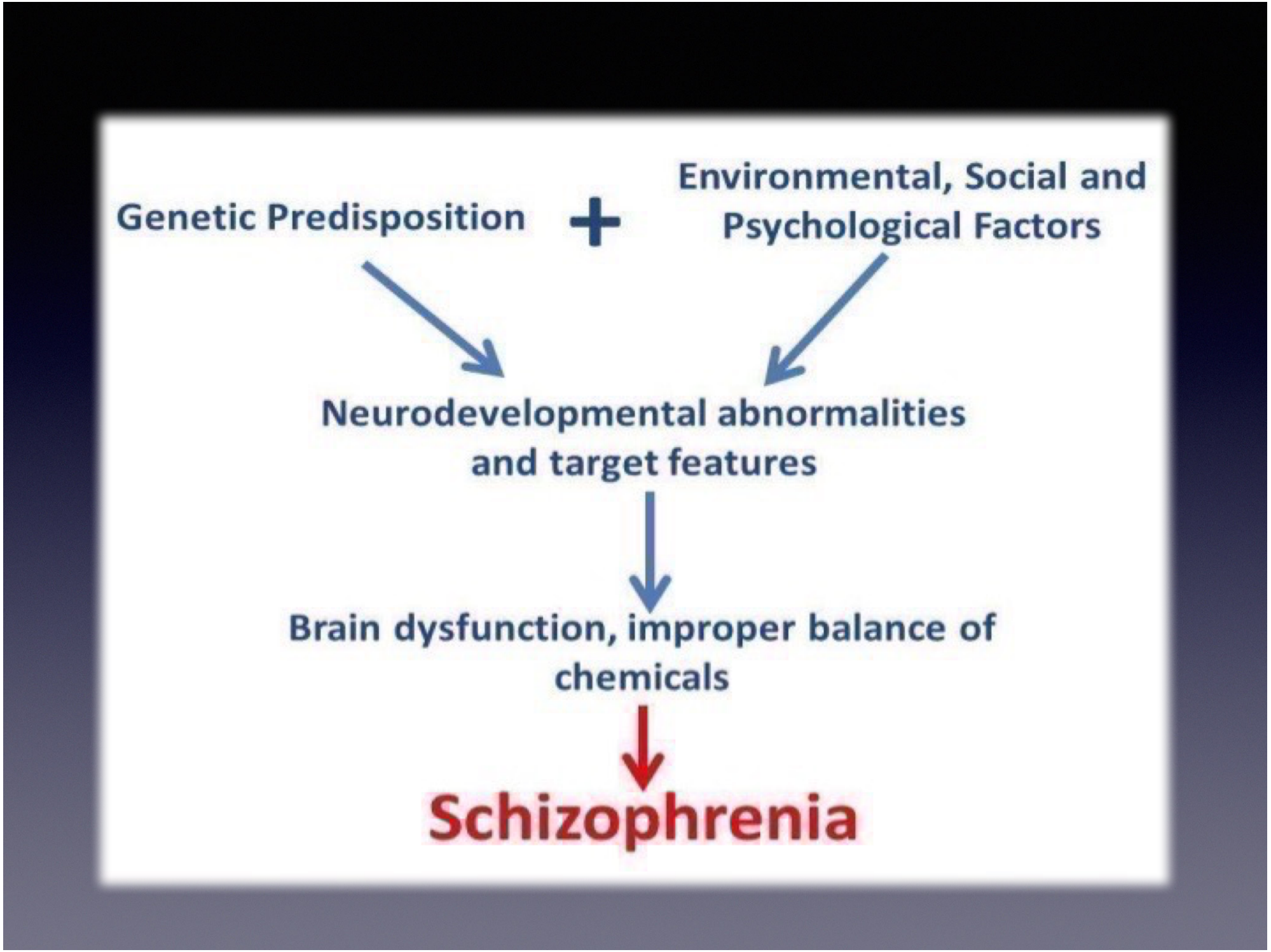

Early and *Late* Gray Matter Deficits in Schizophrenia
EARLIEST DEFICIT
5 YEARS LATER (SAME SUBJECTS)
Average Deficit
0%
-5%
-10%
-15%
-20%
STG
DLPFC
Thompson et al., 2001

Predisposed person + stress/ trigger ➔ onset of mental illness



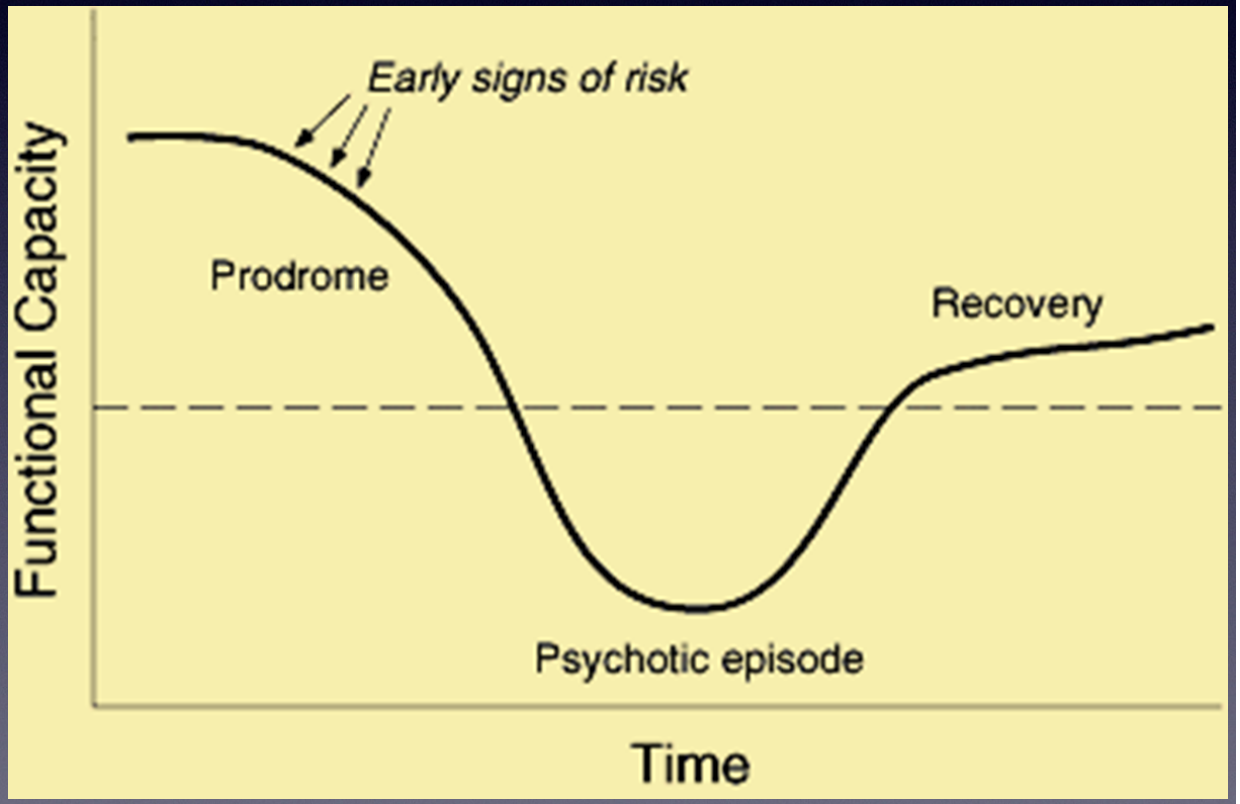


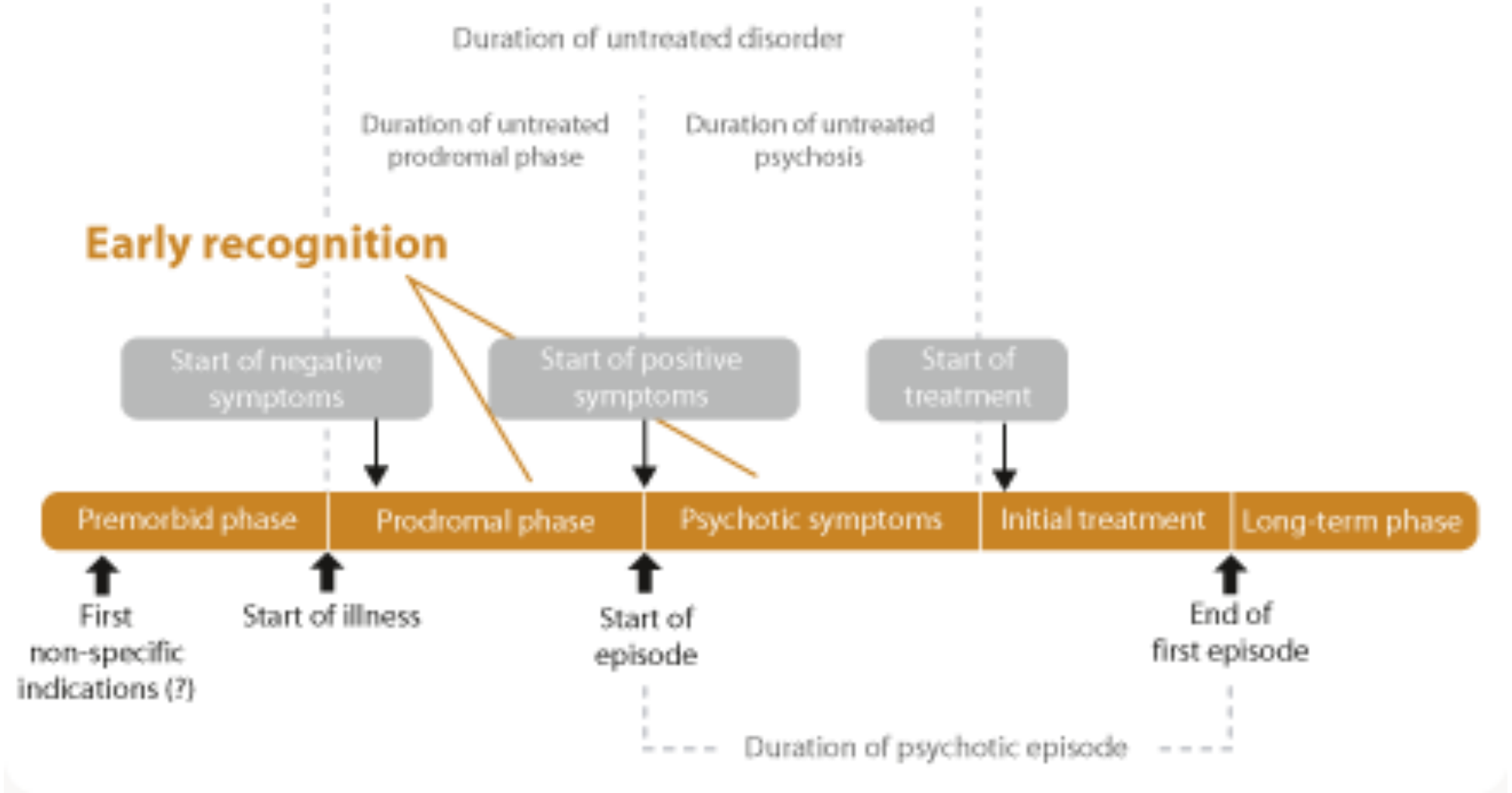
Stress Vulnerability Model


Genetic Predisposition
+
Environmental, Social and Psychological Factors
Neurodevelopmental abnormalities and target features
Brain dysfunction, improper balance of chemicals
Schizophrenia

Typical course of A Psychotic Episode

- Prodromal phase
- Acute psychotic episode
- Recovery phase




Duration of untreated disorder
Duration of untreated prodromal phase
Duration of untreated psychosis
Early recognition
Start of negative symptoms
Start of positive symptoms
Start of treatment
Premorbid phase
Prodromal phase
Psychotic symptoms
Initial treatment
Long-term phase
First non-specific indications (?)
Start of illness
Start of episode
End of first episode
Duration of psychotic episode

Delay in Treatment

- Disruption of psychological and social development
- Disruption of education
- Loss of employment
- Distress in family
- Strain on relationship or loss of family support
- Disruption of parenting role

Delay in Treatment

- Depression and suicide
- Substance abuse
- Hospitalization
- Possible long term damage to brain and cognitive function

Early Identification and Treatment

- Preservation of brain function
- Preservation of psychosocial skills
- Preservation of family and social support
- Reduced morbidity
- Decreased need for hospitalization
- More rapid recovery
- Possibly less need for medication
- Better prognosis

Early Recognition

- Important and sensible
- Prodromal psychosis untreated for an average of 2 years
- Awareness often retain

Prodromal Symptoms

- Minds playing small tricks
- Sensory sensitivity to light, sound and touch
- Decreased sense of smell
- Reduced concentration, attention and memory
- Difficulty in understanding others and being understood in conversation
- Suspiciousness, paranoid or baseless fearfulness

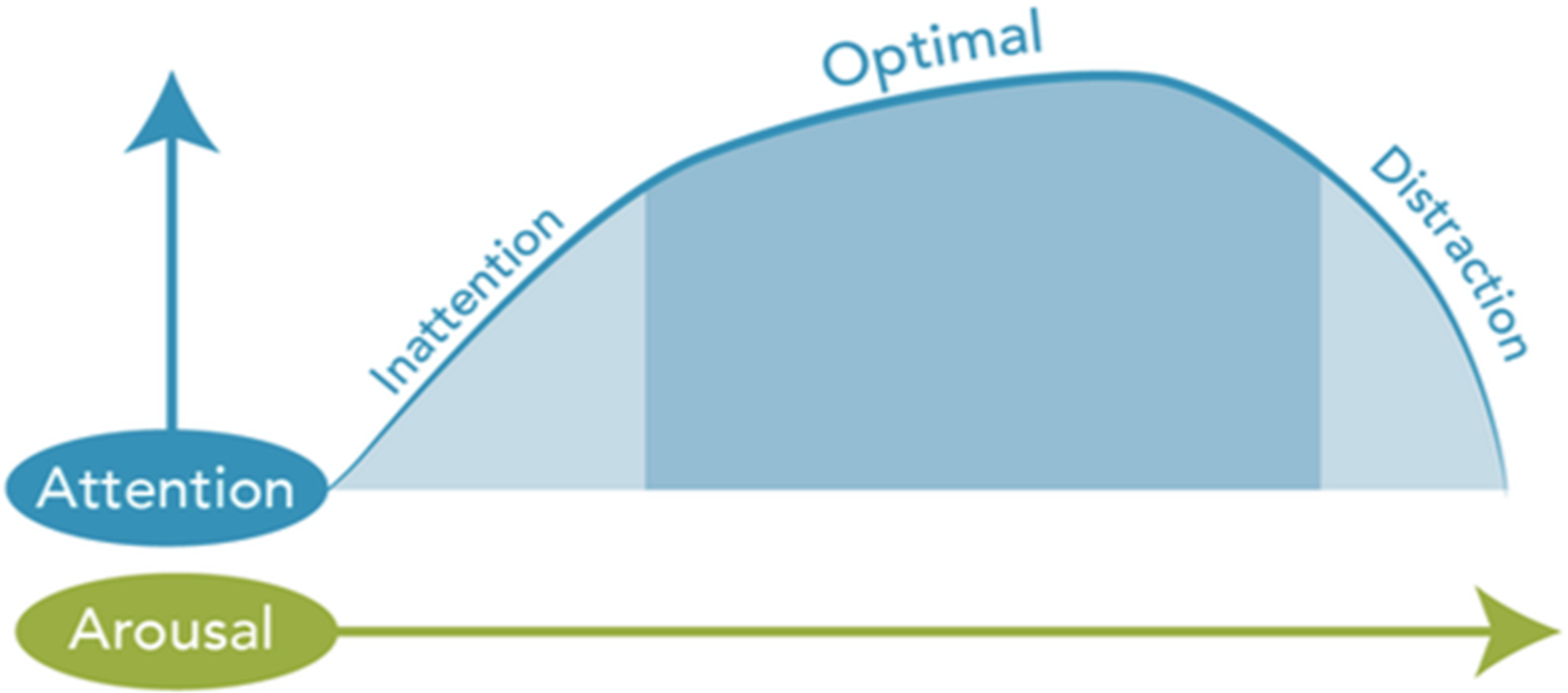
Prodromal Symptoms

- Subtle, very brief , infrequent illusions or hallucinations
- Odd ideas and behavior that are new and uncharacteristic
- Delusional thinking, but without conviction
- Progressive and marked deterioration in functioning at work or school
- Withdrawal from friends and even family

Attention and Arousal Problems

- Unable to control arousal
- Decrease in focus
- Constricted attention

Interaction of attention and arousal



Common Symptoms Early psychosis

- Anxiety
- Irritability
- Depressed or unstable mood
- Reduced drive, motivation and energy
- Sleep disturbance
- Changes in appetite

Key Points in Early Recognition

- Young person
- More socially withdrawn
- Performing worse for a sustained period at school or work
- More distressed or agitated yet unable to explain why
- Family history of psychosis and use of illicit drug

Acute Psychotic Episode

- Clear cut , persistent , psychotic symptoms
- Positive symptoms
- Negative symptoms - may persist longer than positive symptoms
- Cognitive symptoms - impaired short term memory , working memory executive function , expressing thoughts

Recovery Phase

- Variable course and dynamic process
- Treatment environment
- Medication, psychological and psychosocial therapies
- Individual personality trait
- Family and social environment

Diagnosing Psychosis

- Comprehensive psychiatric evaluation by professional
- Diagnosis not be made with any specific single test
- No biological test for psychosis itself
- Laboratory tests are done to rule out other medical problems that provide an alternate explanation

Diagnosing Psychosis

- Final diagnosis of a psychotic disorder such as schizophrenia or bipolar disorder is reached once psychosis is confirmed but other causes are ruled out

Diagnosing Psychosis

- Once psychosis is narrowed down to a psychiatric cause, clearly defined criteria that must be met before a diagnosis is confirmed.
- Two of sets of guidance:

1. the DSM (American Psychiatric Association's publication)
2. the ICD by World Health Organizations

Diagnosis of Schizophrenia

- A combination of delusion, hallucination, thought disorder, disorganized behavior and negative symptoms present for a month (less if successfully treated)
- No mood symptoms or the mood symptoms are brief in relation to the total illness
- Social, occupational and functional decline
- No better explanation given by another medical condition or substance use

Diagnosing Affective Psychosis

- A clear history of mania or depression coming before the psychotic symptoms and persisting beyond them
- Psychotic symptoms are related to mood - grandiose during elation or nihilistic during depression

Schizophrenia Subtype Paranoid

- Delusion of persecution and grandiose
- Hallucination
- Higher level of functioning between episode
- May have stronger familiar link

Schizophrenia Subtype Disorganized

- Disorganized speech and behavior
- Immature emotionality (inappropriate affect)
- Chronic and lacking in remission

Schizophrenia Subtype Catatonic

- Alternate immobility and excited agitation
- Unusual motor response (waxy flexibility and rigidity)
- Odd facial and body mannerism
- Relatively rare

Schizophrenia Subtype Residual

- Person with at least one schizophrenic episode but no longer showing major symptoms
- Still with left-over symptoms (social withdrawal, bizarre thoughts, inactivity, flat affect)

Schizophrenia Subtype Undifferentiated

- Symptoms of different types, but not neatly fall into one subtype

Intervention Strategies

- Early intervention leads to better outcomes
- Aim to reduce mortality, prevent decline, reduce relapse rate and the associated effect
- Medication, psychotherapy (CBT), hospitalization, rehabilitation
- Acute phase vs maintenance phase
- Psychosocial intervention

Typical Antipsychotics

- Mid-1950s
- Symptom control, better quality of life, better functioning
- Chlorpromazine, Haldol, Trifluoperazine, Perphenazine, Thioridazine
- Common side effects – EPS：muscle spasm, muscle stiffness or rigidity, restlessness, tremors, muscle twitches
- Serious side effect - NMS

Atypical Antipsychotics

- 1989
- Less neurological side effect (EPS, Tardive dyskinesia) than typical
- Clozapine, 1st, only agent shown effective for treatment-resistant cases
  - Agranulocytosis, myocarditis
  - Regular monitoring of WCC
- Other atypical : Risperidone, Olanzapine, Quetiapine, Ziprasidone, Aripiprazole, Invega

Atypical Antipsychotics

- At least equally effective and better tolerated
- Efficacy on negative symptoms
- Common side effects - weight gain, increased blood sugar level, lipid level, sedation

Antipsychotics - Points to Note

- 2-4 weeks to take effect
- 6-8 weeks to test the effectiveness
- Depot medication for problem with compliance
- Antidepressants for depression
- Artane, inderal, short-term benzodiazepine may be needed
- Rapid tranquilization for agitation and aggressiveness

Psychosocial Intervention

- Family psycho-education and support
- Community psychiatric team, nurse
- Day hospital
- Supported employment
- Weight control; diet control

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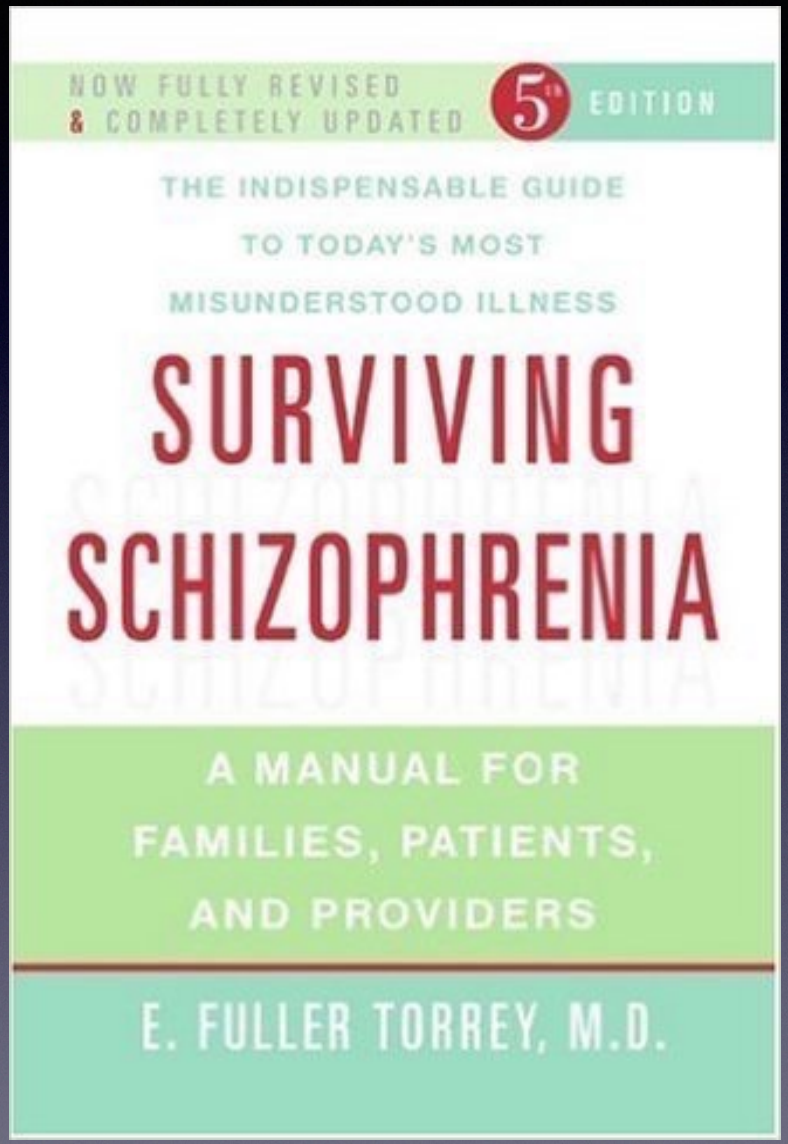
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THE INDISPENSABLE GUIDE
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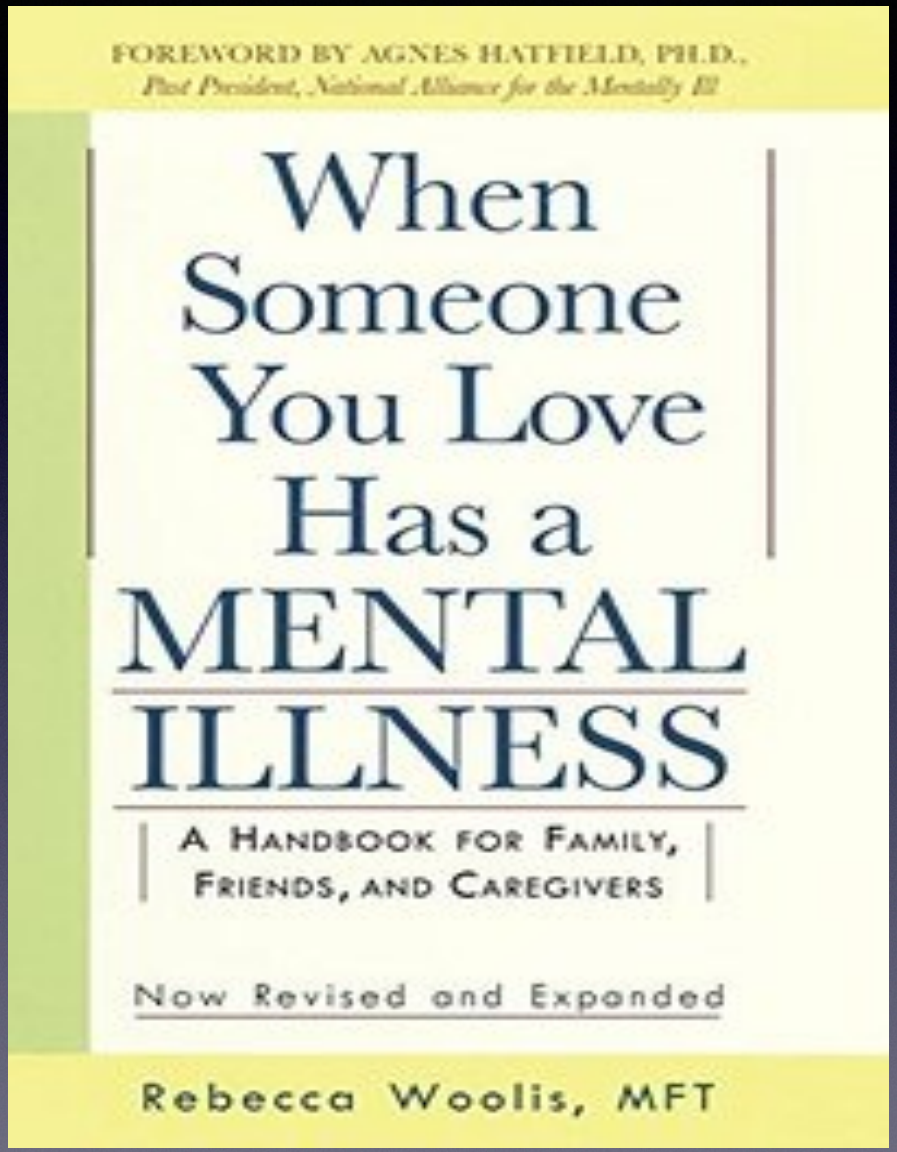
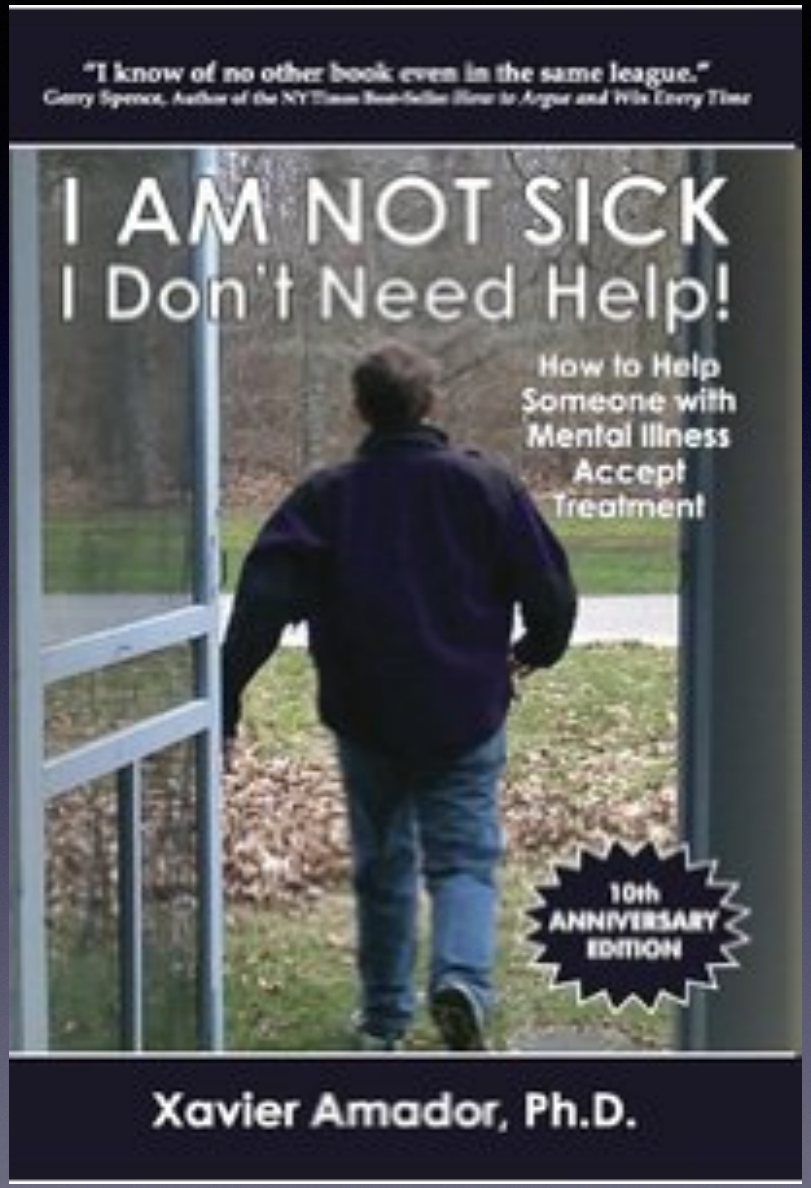

FOREWORD BY AGNES HATFIELD, PH.D.,
Past President, National Alliance for the Mentally Ill
When
Someone
You Love
Has a
MENTAL
ILLNESS
A Handbook for Family,
Friends, and Caregivers
Now Revised and Expanded
Rebecca Woolis, MFT


"I know of no other book even in the same league."
I AM NOT SICK
I Don't Need Help!
How to Help Someone with Mental Illness Accept Treatment
10th ANNIVERSARY EDITION
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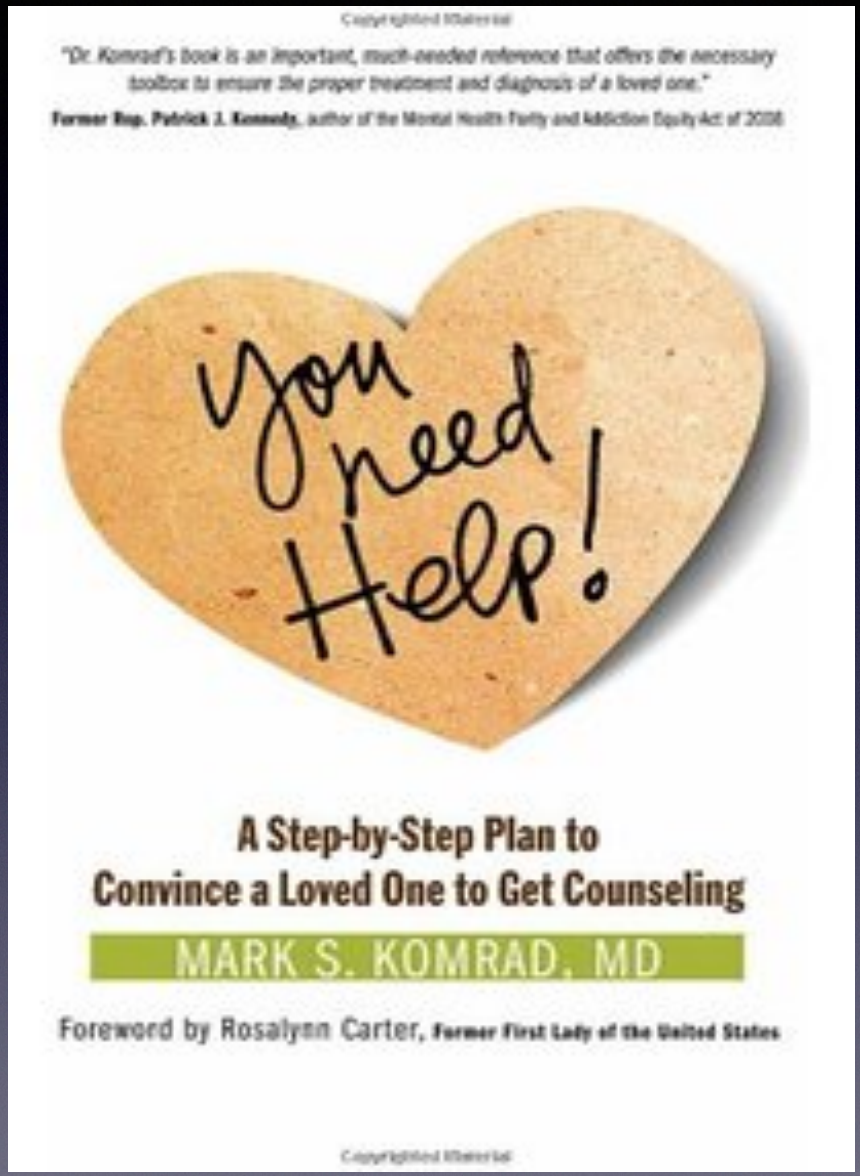
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Former Rep. Patrick J. Kennedy, author of the Mental Health Parity and Addiction Equity Act of 2008
you need Help!
A Step-by-Step Plan to Convince a Loved One to Get Counseling
MARK S. KOMRAD, MD
Foreword by Rosalynn Carter, Former First Lady of the United States

Thank you!