

# SCHIZOPHRENIA

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**Nasser is a 28 year-old  
single male**

**Emergency room by his family**

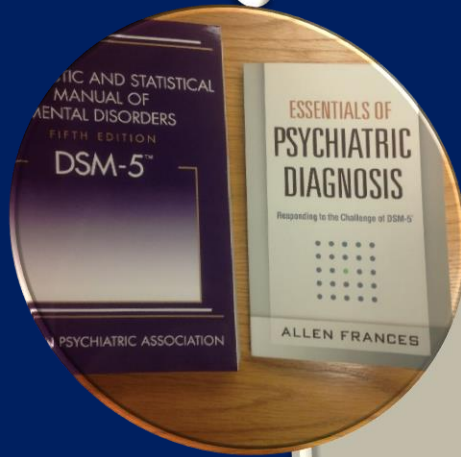
**gradual changes in  
his behavior 9 months**

**Eat only canned food but not  
cooked food made by his  
family**

**agitated**

**He talks to himself and  
stares occasionally on  
the roof of his room.**

**Afraid of  
being  
poisoned**



**What are the possible  
etiological reasons?  
DDX?**



**What are the main  
symptoms & signs?**



Not single  
disease

Prevalence  
& incidence  
worldwide.

10-25 ♂  
Vs  
25-35 ♀

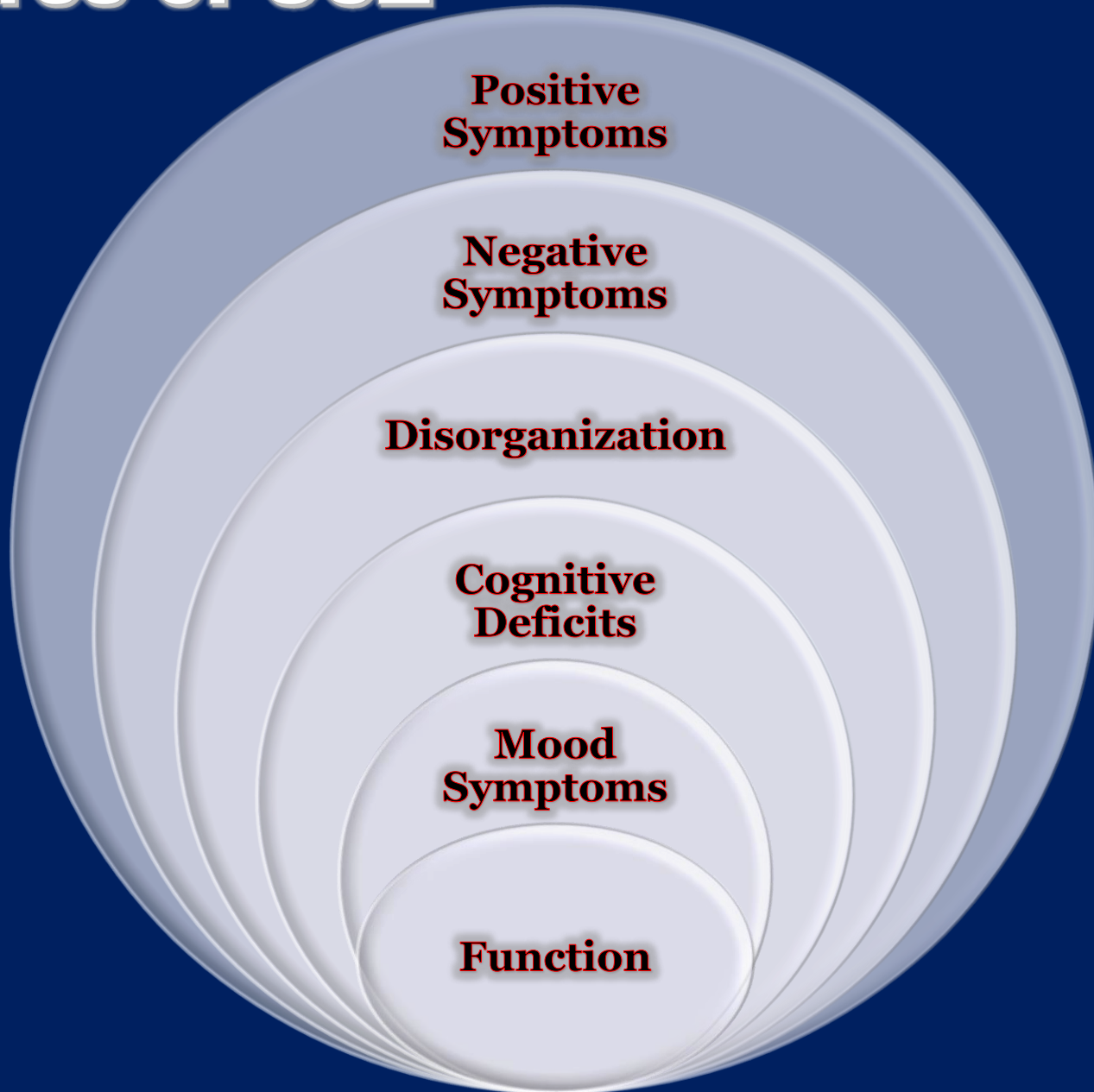
**SCZ**

Prevalence  
0.6– 1.9 %

Age of  
onset

Annual  
incidence  
of 0.5 – 5.0  
per 10,000

# Features of SCZ





**Unknown**

- Symptoms → Vulnerability
- Biological, Psychosocial and Environmental

Stress-Diathesis Model:



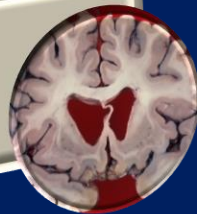
- Areas of the brain
- Dopamine
- Other

Neurobiology



- structures or connections
- Limbic system
- Basal ganglia
- Cerebellum

Neuropathology



- Family studies
- Twin studies
- Chromosome.

Genetic Factors



**Symptoms → •**

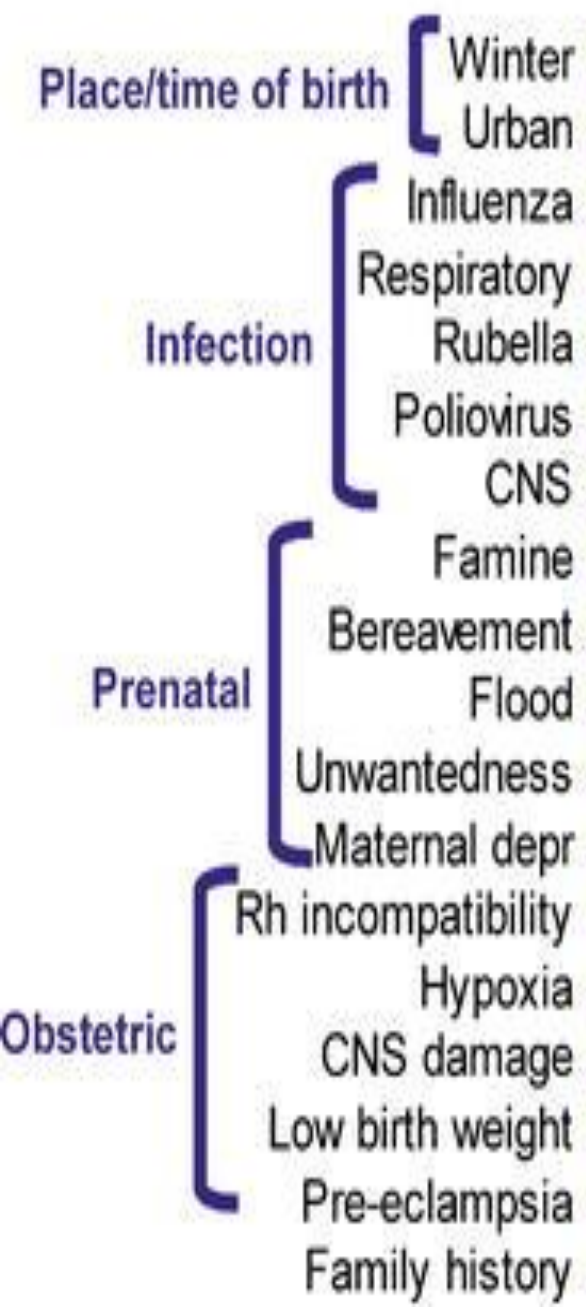
**Vulnerability**

- **Biological,  
Psychosocial and  
Environmental**

**Stress-Diathesis Model:**





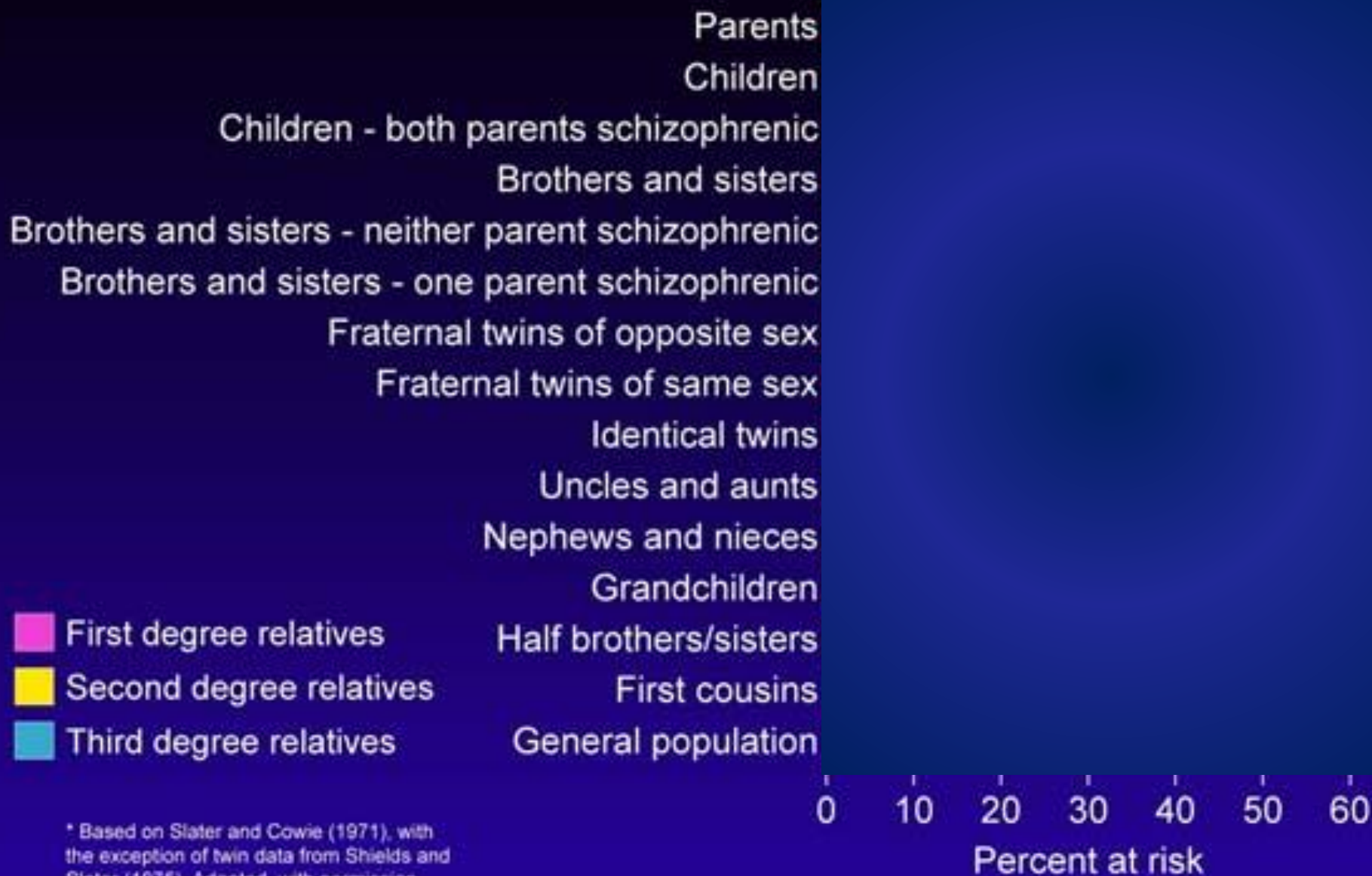


- **Family studies**
- **Twin studies**
- **Chromosome.**

**Genetic Factors**



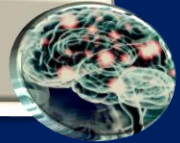
# Rates of Schizophrenia Among Relatives of Schizophrenic Patients\*



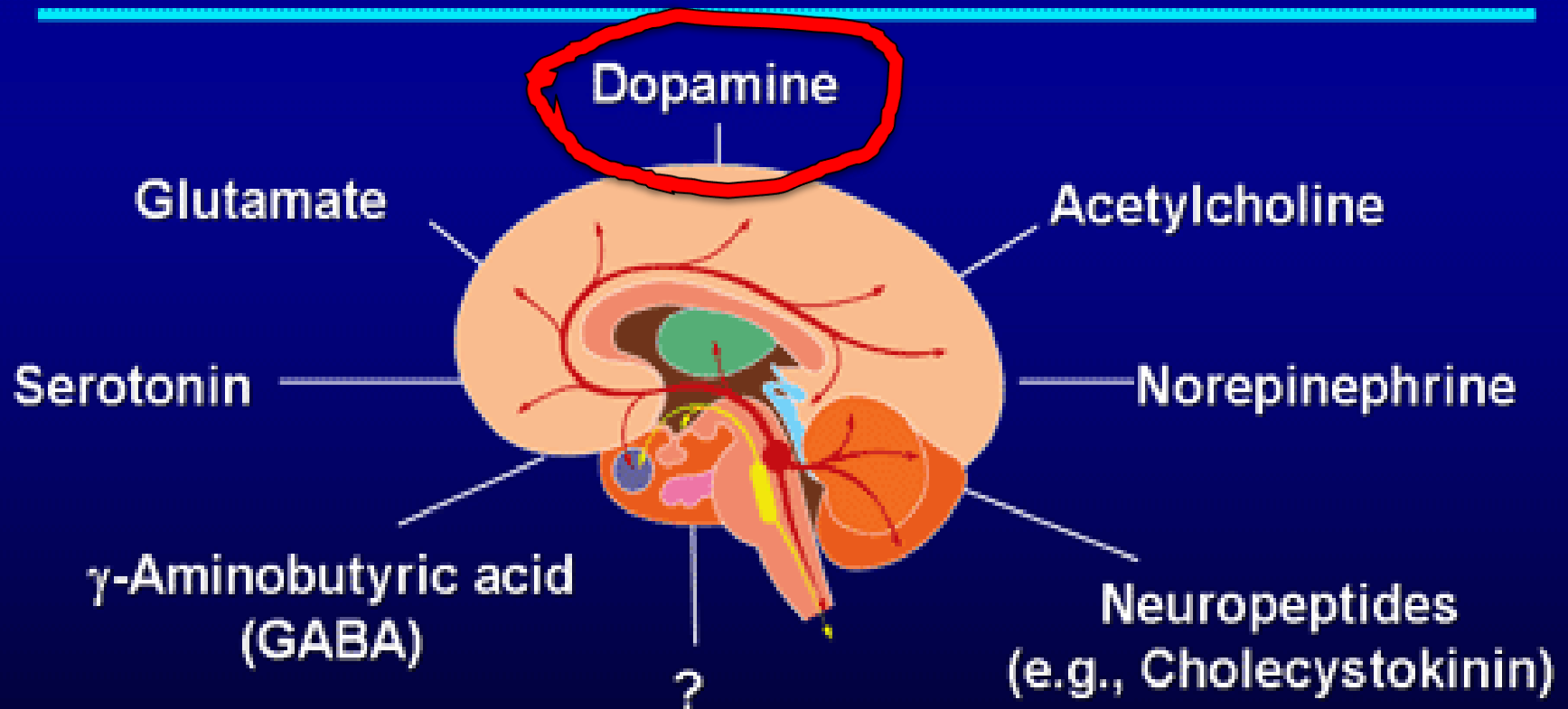
\* Based on Slater and Cowie (1971), with the exception of twin data from Shields and Slater (1975). Adapted, with permission, from Tsuang and Vandermeij (1980).

- **Areas of the brain**
- **Dopamine**
- **Other**

Neurobiology



# Neurotransmitter Systems Implicated in Schizophrenia

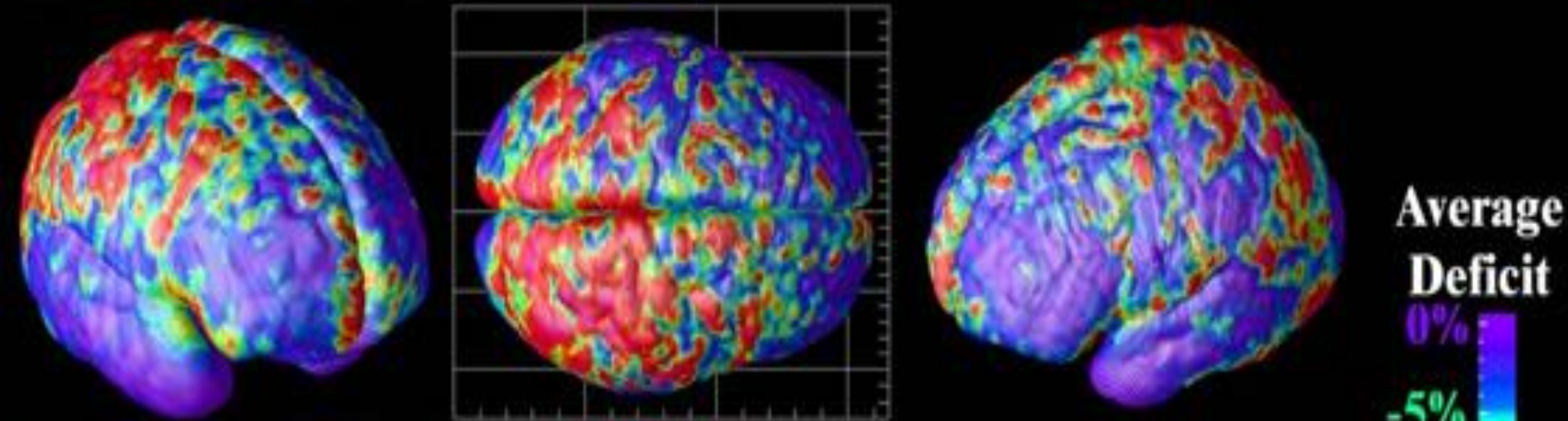


**Schizophrenia Probably Involves Multiple Neurotransmitter System Abnormalities<sup>1, 2</sup>**

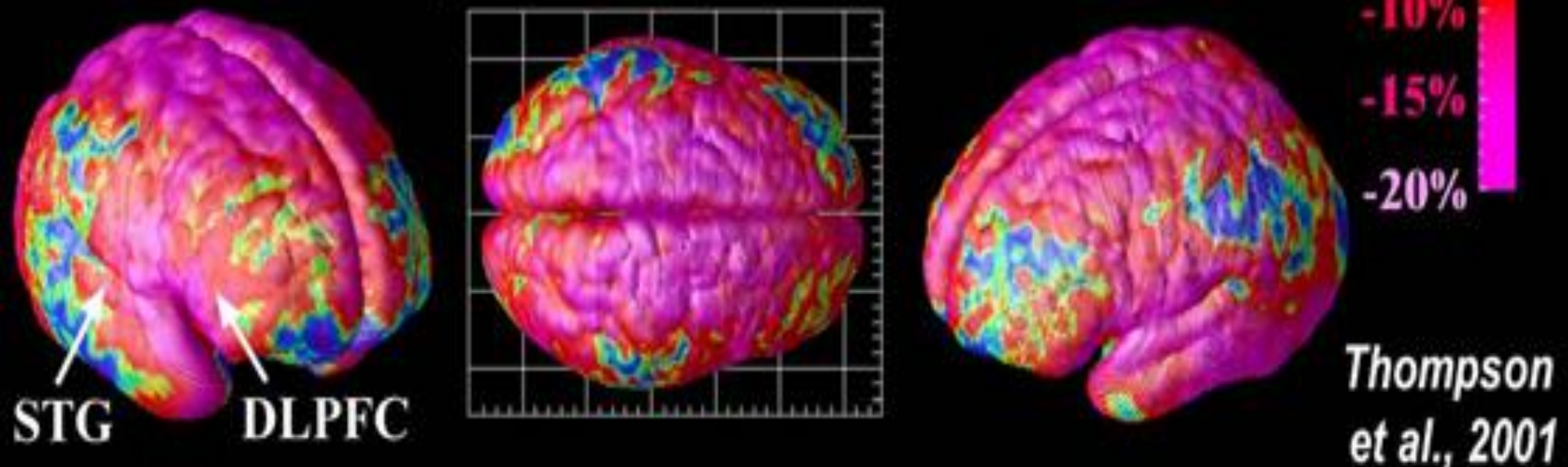
<sup>1</sup>Goff et al. (2001), *Med Clin North Am* 85:663-689; <sup>2</sup>Casey, Zorn (2001), *J Clin Psychiatry* 62(suppl 7):4-10

# Early and Late Gray Matter Deficits in Schizophrenia

## EARLIEST DEFICIT



## 5 YEARS LATER (SAME SUBJECTS)



Thompson  
et al., 2001

# Diagnosis

## # DSM-5 Diagnostic Criteria for Schizophrenia:

A-  $\geq$  two characteristic symptoms for one month, at least one of them is (1),(2) or (3)

1- Delusions

2- Hallucinations

3- Disorganized speech (frequent derailment or incoherence)

4- Grossly disorganized or catatonic behavior

5- Negative symptoms ( diminished emotional expression or lack of drive (avolition))

- B- Social, Occupation or self-care dysfunction**
- C- Duration of at least 6 months of disturbance (include at least one month of active symptoms that meet Criterion A; in addition of periods of prodromal and residual symptoms).**
- D- Schizoaffective & mood disorder exclusion**
- E- The disturbance is not due to Substance or another medical condition.**
- F- If there is history of autism spectrum disorder or a communication disorder of childhood onset, schizophrenia diagnosis is made only if delusion or hallucinations plus other criteria are present.**



# Clinical Features

- ❑ No single clinical sign or symptom is pathognomonic for schizophrenia
- ❑ Patient's history & mental status examination are essential for diagnosis.
- ❑ Premorbid history includes schizoid or schizotypal personalities, few friends & exclusion of social activities.
- ❑ Prodromal features include obsessive compulsive behaviors , attenuated positive psychotic features.

# Mental Status Examination

- Appearance & behavior
- Mood, feelings & affect
- Perceptual disturbances
- Thought: Thought content  
Form of thought  
Thought process ( thought blocking,  
poverty of thought content, poor abstraction,  
perseveration )
- Impulsiveness, violence, suicide & homicide
- Cognitive functioning
- Poor insight and judgment

# Prognosis

**Good P.F**

**Poor P.F**

# Differential Diagnosis

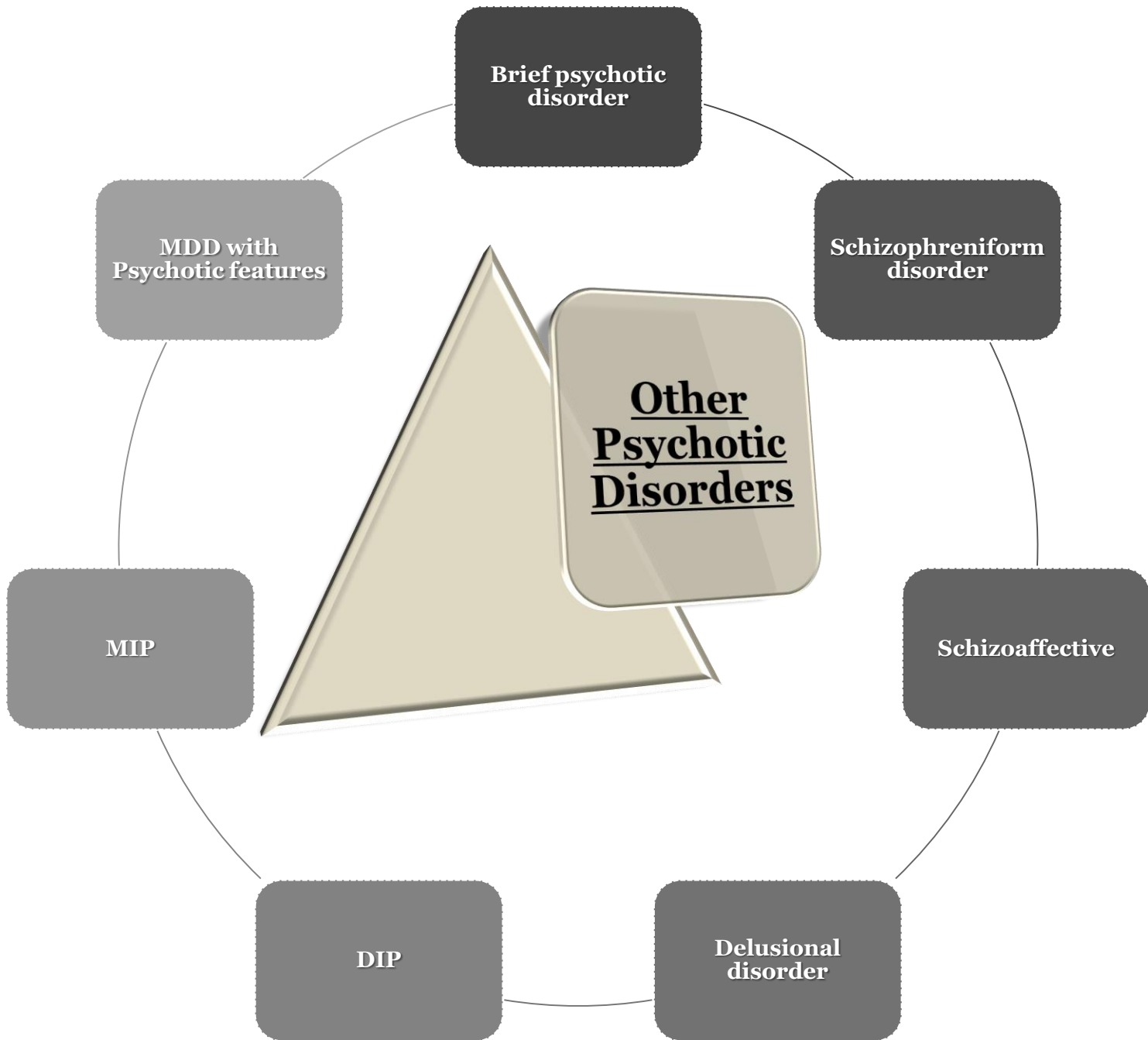
## (*Other psychotic Dis.*)

### SECONDARY PSYCHIATRIC DISORDERS

- Substance-induced disorders
- Psychotic disorders due to another medical disorder :
  - Epilepsy ( complex partial)
  - CNS diseases
  - Trauma
  - Others

### PRIMARY PSYCHIATRIC DISORDERS

- Schizophreniform disorder
- Brief psychotic disorder
- Delusional disorder
- Schizoaffective disorder
- Mood disorders
- Personality disorders
  - (schizoid, schizotypal & borderline personality)
- Factitious disorder
- Malingering



**Brief psychotic disorder**

**MDD with Psychotic features**

**Schizophreniform disorder**

**Other Psychotic Disorders**

**MIP**

**Schizoaffective**

**DIP**

**Delusional disorder**

# Antipsychotic Medications

## Conventional Antipsychotics

Chlorpromazine

Fluphenazine

Haloperidol

Loxapine

Molindone

Perphenazine

Pimozide

Prochlorperazine

Thiothixene

Thioridazine

Trifluoperazine

## Atypical Antipsychotics

Aripiprazole

Clozapine

Olanzapine

Paliperidone

Quetiapine

Risperidone

Ziprasidone

Thank you

谢谢

Спасибо

nuqneH

Děkuju

谢

Ευχαριστούμε

terima kasih

Дякую

شكرا

Благодаря

شكريا

tak

谢

Obrigado

Vielen Dank

ありがとう

Дзякуючы

Tack

شكر

Đakujem

Merci

Aitāh

DĚKUJU

Gracies

Diolch

Kiitos

شكر

Spasibo

Bedankt

متشكرا

vă mulțumesc

Дякую

Teşekkür ederiz

Köszönöm

БЛАГОДАРЯ

ДАРЯ

Ua tsaug

Dziękujemy

Bedankt

Gracies

Kiitos

Teşekkür ederiz

Terima Kasih

Vielen Dank

감사합니다

Hvala

Vielen Dank

Vielen Dank

감사합니다

Məsi

Tak

vă mulțumesc

متشكرا

grazzi

Tak

ありがとう

Ευχαριστούμε

ありがとう