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Understanding Psychiatric Diagnoses Using Mnemonics

Schizophrenia

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Objectives

- Discuss the implications of the use of mnemonics in educational settings, specifically in medicine
- Review diagnostic difference between DSM-IV-TR and DSM-5 for Schizophrenia Disorder
- Examine mnemonics that can assist with understanding schizophrenia diagnosis, including discussion of the Positive and Negative Syndrome Scale (PANSS)

Mnemonic Use In Educational Settings

- Mnemonics, derived from the Greek word ***mnemonikos,*** are techniques used to assist memory dating back to 477 BCE. Use of mnemonics is a strategy for encoding new information in memory in such a way that it can be more easily retrieved, freeing up more cognitive resources for higher-order thinking.[1]
- Memory for factual information is absolutely essential for success in school, particularly at the secondary level. Mnemonic strategies are a way to relate new information to information students already have locked in long-term memory.[2]
- Having an organized, structured thinking process is critical in medicine. It is this thinking process that enables one to go through the method of history-taking, which will eventually lead to making a definitive diagnosis and all other processes that follow.[3]
- Effective communication is central to safe and effective patient care.[4]

1. Mocko M et al. Journal of Statistics Education. 2017;25(1):2-11;
2. Mastropieri M et al. Intervention in School and Clinic. 1998;33(4):201-2008;
3. Zabidi-Hussin ZA. Advances in Medical Education and Practice.2016;7:247-248
4. Risenberg LA et al. American Journal of Medical Quality. 2009; 196-203;.

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Schizophrenia
DSM-IV-TR Compared With DSM-5

Major Changes In Schizophrenia Diagnostic Criteria

- Changes in Criterion A from possibly only 1 needed to 2

In *DSM-IV-TR*, Criterion A included a special attribution to both (1) bizarre delusions and (2) auditory hallucinations (i.e., two or more voices conversing, or a voice keeping up a running commentary on the person's behavior or thoughts) with only 1 of these needed to meet the diagnostic requirement for Criterion A

In *DSM-5*, this special attribution has been eliminated; at least two Criterion A symptoms are required for any diagnosis of schizophrenia

- The elimination of the *DSM-IV-TR* subtypes
- The inclusion of a dimensional approach to rating severity for the core symptoms of schizophrenia

DSM, Diagnostic and Statistical Manual of Mental Disorders.

1. American Psychiatric Association. Highlight of Changes from DSM-IV-TR to DSM-5. Available at: http://www.dsm5.org/Documents/changes_from_dsm-iv-tr_to_dsm-5.pdf.

DSM-5 Diagnostic Criteria For Schizophrenia

A. Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated). **At least one of these must be (1), (2), or (3):**
   1. Delusions.
   2. Hallucinations.
   3. Disorganized speech (e.g., frequent derailment or incoherence).
   4. Grossly disorganized or catatonic behavior.
   5. Negative symptoms (i.e., diminished emotional expression or avolition).

B. For a significant portion of time since the onset of the disturbance, level of functioning in one or more major areas, such as work, interpersonal relations, or self-care, is markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, there is failure to achieve expected level of interpersonal, academic, or occupational functioning).

C. Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet Criterion A (i.e., active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or by two or more symptoms listed in Criterion A present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).

Text in bold, bright blue indicates new text in DSM-5 versus DSM-IV-TR.

DSM, Diagnostic and Statistical Manual of Mental Disorders.

1. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Washington, DC: American Psychiatric Association; 2013.

DSM-5 Diagnostic Criteria For Schizophrenia (Cont'd)

D. Schizoaffective disorder and depressive or bipolar disorder with psychotic features have been ruled out because either 1) no major depressive or manic episodes have occurred concurrently with the active-phase symptoms, or 2) if mood episodes have occurred during active-phase symptoms, they have been present for a minority of the total duration of the active and residual periods of the illness.

E. The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.

F. If there is a history of autism spectrum disorder or a communication disorder of childhood onset, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations, in addition to the other required symptoms of schizophrenia, are also present for at least 1 month (or less if successfully treated).

Specify current severity: Severity is rated by a quantitative assessment of the primary symptoms of psychosis, including delusions, hallucinations, disorganized speech, abnormal psychomotor behavior, and negative symptoms. Each of these symptoms may be rated for its current severity (most severe in the last 7 days) on a 5-point scale ranging from 0 (not present) to 4 (present and severe).

Note: Diagnosis of schizophrenia can be made without using this severity specifier.

Text in bold, bright blue indicates new text in DSM-5 versus DSM-IV-TR.

DSM, Diagnostic and Statistical Manual of Mental Disorders.

1. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Washington, DC: American Psychiatric Association; 2013.

Clinician-Rated Dimensions of Psychosis Symptom Severity

Name:_____ **Age:** _____ **Sex:** [ ] Male [ ] Female **Date:**_____

Instructions: Based on all the information you have on the individual and using your clinical judgment, please rate (with checkmark) the presence and severity of the following symptoms as experienced by the individual in the past seven (7) days.

Domain	0	1	2	3	4	Score
I. Hallucinations	❑ Not present	❑ Equivocal (severity or duration not sufficient to be considered psychosis)	❑ Present, but mild (little pressure to act upon voices, not very bothered by voices)	❑ Present and moderate (some pressure to respond to voices, or is somewhat bothered by voices)	❑ Present and severe (severe pressure to respond to voices, or is very bothered by voices)	
II. Delusions	❑ Not present	❑ Equivocal (severity or duration not sufficient to be considered psychosis)	❑ Present, but mild (little pressure to act upon delusional beliefs, not very bothered by beliefs)	❑ Present and moderate (some pressure to act upon beliefs, or is somewhat bothered by beliefs)	❑ Present and severe (severe pressure to act upon beliefs, or is very bothered by beliefs)	
III. Disorganized speech	❑ Not present	❑ Equivocal (severity or duration not sufficient to be considered disorganization)	❑ Present, but mild (some difficulty following speech)	❑ Present and moderate (speech often difficult to follow)	❑ Present and severe (speech almost impossible to follow)	
IV. Abnormal psychomotor behavior	❑ Not present	❑ Equivocal (severity or duration not sufficient to be considered abnormal psychomotor behavior)	❑ Present, but mild (occasional abnormal or bizarre motor behavior or catatonia)	❑ Present and moderate (frequent abnormal or bizarre motor behavior or catatonia)	❑ Present and severe (abnormal or bizarre motor behavior or catatonia almost constant)	
V. Negative symptoms (restricted emotional expression or avolition)	❑ Not present	❑ Equivocal decrease in facial expressivity, prosody, gestures, or self-initiated behavior	❑ Present, but mild decrease in facial expressivity, prosody, gestures, or self-initiated behavior	❑ Present and moderate decrease in facial expressivity, prosody, gestures, or self-initiated behavior	❑ Present and severe decrease in facial expressivity, prosody, gestures, or self-initiated behavior	
VI. Impaired cognition	❑ Not present	❑ Equivocal (cognitive function not clearly outside the range expected for age or SES; i.e., within 0.5 SD of mean)	❑ Present, but mild (some reduction in cognitive function; below expected for age and SES, 0.5–1 SD from mean)	❑ Present and moderate (clear reduction in cognitive function; below expected for age and SES, 1–2 SD from mean)	❑ Present and severe (severe reduction in cognitive function; below expected for age and SES, > 2 SD from mean)	
VII. Depression	❑ Not present	❑ Equivocal (occasionally feels sad, down, depressed, or hopeless; concerned about having failed someone or at something but not preoccupied)	❑ Present, but mild (frequent periods of feeling very sad, down, moderately depressed, or hopeless; concerned about having failed someone or at something, with some preoccupation)	❑ Present and moderate (frequent periods of deep depression or hopelessness; preoccupation with guilt, having done wrong)	❑ Present and severe (deeply depressed or hopeless daily; delusional guilt or unreasonable self-reproach grossly out of proportion to circumstances)	
VIII. Mania	❑ Not present	❑ Equivocal (occasional elevated, expansive, or irritable mood or some restlessness)	❑ Present, but mild (frequent periods of somewhat elevated, expansive, or irritable mood or restlessness)	❑ Present and moderate (frequent periods of extensively elevated, expansive, or irritable mood or restlessness)	❑ Present and severe (daily and extensively elevated, expansive, or irritable mood or restlessness)	

Note. SD = standard deviation; SES = socioeconomic status.

1. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Washington, DC: American Psychiatric Association; 2013

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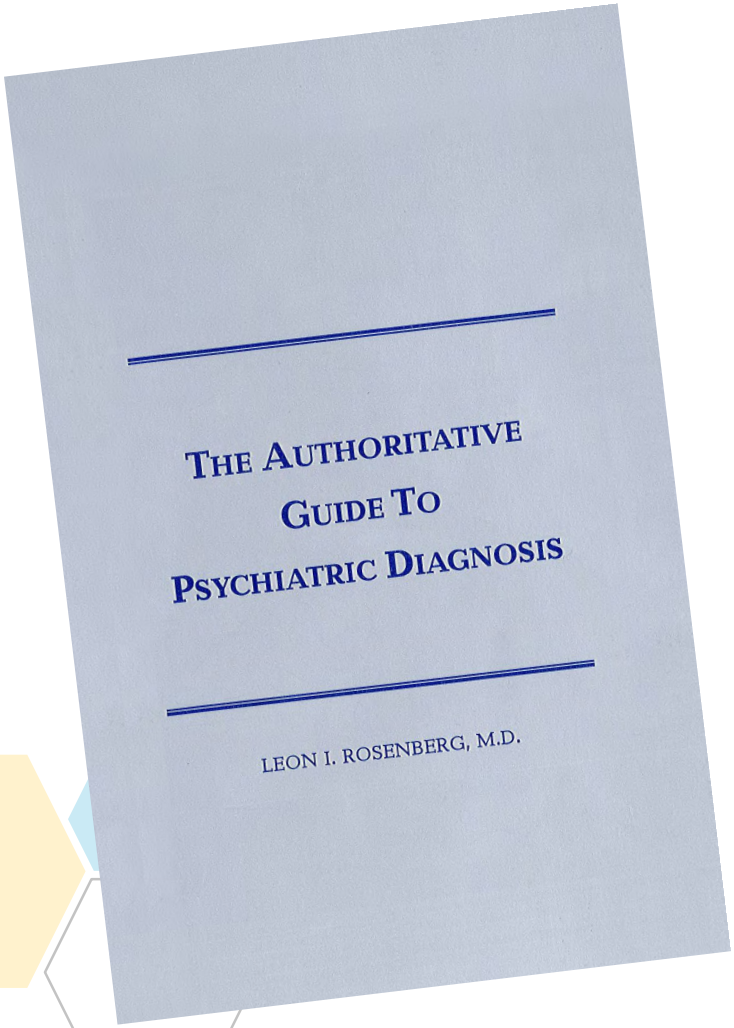
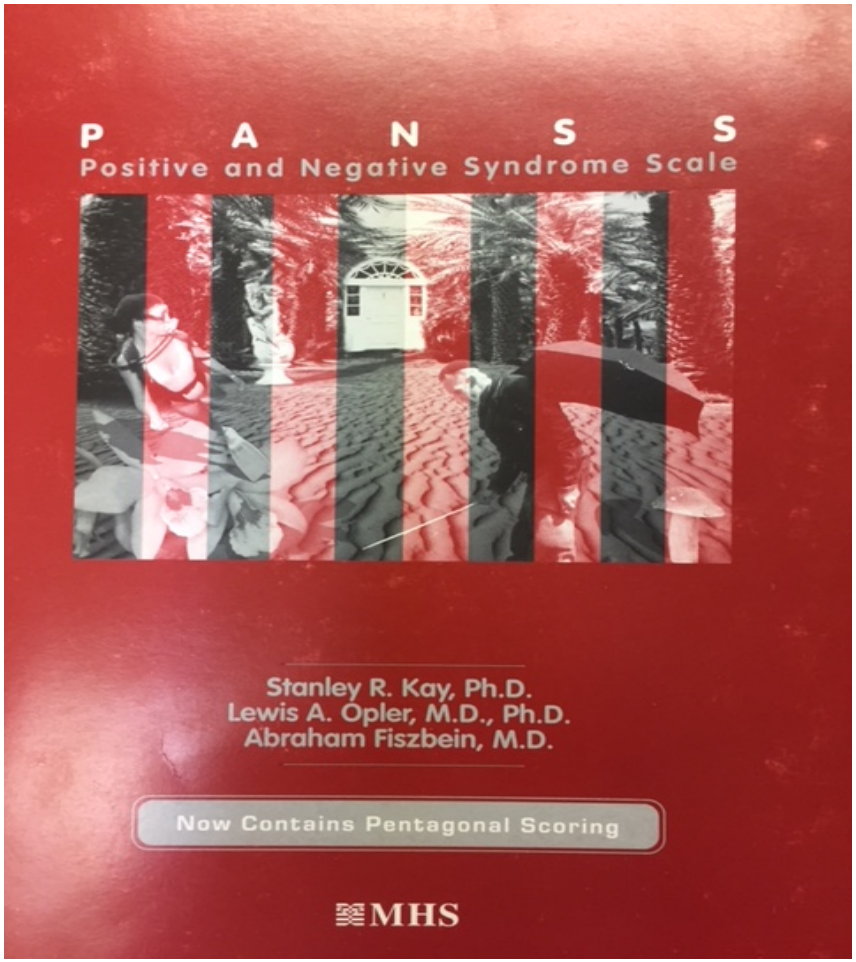


Schizophrenia Mnemonics Based On DSM-IV-TR

Positive & Negative Syndrome Scale (PANSS)



1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc. (Photo)

PANSS Definition[1]

"The Positive And Negative Syndrome Scale (PANSS) has been specifically designed to assist you in the assessment of schizophrenia and other related clinical disorders…The PANSS is based on findings that schizophrenia comprises at least two distinct syndromes: The positive syndrome consisting of productive symptoms (e.g., hallucinations and delusions), which usually respond well to neuroleptic treatment; and the negative syndrome consisting of deficit features (e.g., blunted affect and passive social withdrawal), which are indicative of poor premorbid status, neuroleptic resistance, and poor prognosis."

(The) "surveys of existing positive and negative syndromal assessments revealed several basic limitations…"

The number one listed limitation of the previous scales was *inadequate symptom definition*.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

POSITIVE SYMPTOM SCALE

"Measuring symptoms that are added to a normal mental status"[1]

P1. Delusions
P2. Conceptual disorganization
P3. Hallucinatory behavior
P4. Excitement
P5. Grandiosity
P6. Suspiciousness/persecution
P7. Hostility

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

POSITIVE SYMPTOMS[1]

P1. Delusions. **Beliefs which are unfounded, unrealistic, and idiosyncratic.** *Basis for rating:* thought content expressed in the interview and its influence on social relations and behavior as reported by primary care workers or family.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

POSITIVE SYMPTOMS[1]

P2. Conceptual disorganization. Disorganized process of thinking characterized by disruption of goal-directed sequencing, e.g., circumstantiality, tangentiality, loose associations, non-sequiturs, gross illogicality, or thought block. *Basis for rating*: cognitive-verbal processes observed during the course of interview.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

POSITIVE SYMPTOMS[1]

P3. Hallucinatory behavior. Verbal report or behavior indicating perceptions which are not generated by external stimuli. These may occur in the auditory, visual, olfactory, or somatic realms. *Basis for rating*: verbal report and physical manifestations during the course of interview as well as reports of behavior by primary care workers or family.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

POSITIVE SYMPTOMS[1]

P4. Excitement. Hyperactivity as reflected in accelerated motor behavior, heightened responsivity to stimuli, hypervigilance, or excessive mood lability. *Basis for rating*: behavioral manifestations during the course of interview as well as reports of behavior by primary care workers or family.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

POSITIVE SYMPTOMS[1]

P5. Grandiosity. Exaggerated self-opinion and unrealistic convictions of superiority, including delusions of extraordinary abilities, wealth, knowledge, fame, power, and moral righteousness. *Basis for rating*: thought content expressed in the interview and its influence on behavior as reported by primary care workers or family.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

POSITIVE SYMPTOMS[1]

P6. Suspiciousness/persecution. Unrealistic or exaggerated ideas of persecution, as reflected in guardedness, a distrustful attitude, suspicious hypervigilance, or frank delusions that others mean one harm.

Basis for rating: thought content expressed in the interview and its influence on behavior as reported by primary care workers or family.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

POSITIVE SYMPTOMS[1]

P7. Hostility. Verbal and nonverbal expressions of anger and resentment, including sarcasm, passive-aggressive behavior, verbal abuse, and assaultiveness. *Basis for rating:* interpersonal behavior observed during the interview and reports by primary care workers or family.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

Positive Symptoms Of Schizophrenia: SHE GLADLY HALLUCINATES©, [1]

- **S**uspiciousness
- **H**ostility
- **E**xcitement

- **G**randiosity
- **L**oose
- **A**ssociations
- **D**elusions
- **L**ike
- **Y's** } Conceptual disorganization with goal-directed sequencing disruptions such as LOA: circumstantiality; tangentiality; non-sequiturs; gross illogicality; and thought blocking
- **H**allucinations

1. Rosenberg LI. *The Authoritative Guide to Psychiatric Diagnosis.* 2002.

NEGATIVE SYMPTOM SCALE

"Measuring Features That Are Absent From A Normal Mental Status"[1]

N1. Blunted affect
N2. Emotional withdrawal
N3. Poor rapport
N4. Passive/apathetic social withdrawal
N5. Difficulty in abstract thinking
N6. Lack of spontaneity and flow of conversation
N7. Stereotyped thinking

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

NEGATIVE SCALE (N)[1]

N1. Blunted affect. Diminished emotional responsiveness as characterized by a reduction in facial expression, modulation of feelings, and communicative gestures. *Basis for rating*: observation of physical manifestations of affective tone and emotional responsiveness during the course of interview.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

NEGATIVE SCALE (N)[1]

N2. Emotional withdrawal. Lack of interest in, involvement with, and affective commitment to life's events. *Basis for rating*: reports of functioning from primary care workers or family and observation of interpersonal behavior during the course of interview.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

NEGATIVE SCALE (N)[1]

N3. Poor rapport. Lack of interpersonal empathy, openness in conversation, and sense of closeness, interest, or involvement with the interviewer. This is evidenced by interpersonal distancing and reduced verbal and nonverbal communication. *Basis for rating:* interpersonal behavior during the course of interview.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

NEGATIVE SCALE (N)[1]

N4. Passive/apathetic social withdrawal. Diminished interest and initiative in social interactions due to passivity, apathy, anergy, or avolition. This leads to reduced interpersonal involvements and neglect of activities of daily living. *Basis for rating:* reports on social behavior from primary care workers or family.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

NEGATIVE SCALE (N)[1]

N5. Difficulty in abstract thinking. Impairment in the use of the abstract-symbolic mode of thinking, as evidenced by difficulty in classification, forming generalizations, and proceeding beyond concrete or egocentric thinking in problem-solving tasks. *Basis for rating:* responses to questions on similarities and proverb interpretation and use of concrete vs. abstract mode during the course of the interview.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

NEGATIVE SCALE (N)[1]

N6. Lack of spontaneity and flow of conversation. Reduction in the normal flow of communication associated with apathy, avolition, defensiveness, or cognitive deficit. This is manifested by diminished fluidity and productivity of the verbal-interactional process. *Basis for rating*: cognitive-verbal processes observed during the course of interview.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

NEGATIVE SCALE (N)[1]

N7. Stereotyped thinking. Decreased fluidity, spontaneity, and flexibility of thinking, as evidenced in rigid, repetitious, or barren thought content. *Basis for rating:* cognitive-verbal processes observed during the interview.

1. Kay, S.R. (2006). Positive and Negative Syndrome Scale (PANSS). North Tonawanda, New York: Multi-Health Systems, Inc.

Negative Symptoms Of Schizophrenia:
RAPPORT PAST BLASÉ©, [1]

- **Rapport** is poor
- **P**assive/apathetic social withdrawal
- **A**bstract thinking difficulties

- **S**tereotyped **T**hinking
- **BL**unted **A**ffect
- **S**peech lacks spontaneity
- **E**motional withdrawal

1. Rosenberg LI. *The Authoritative Guide to Psychiatric Diagnosis.* 2002.

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Mechanism Of Action Of The Serotonin Dopamine Antagonists:

How Do The 2nd Generation Atypical Antipsychotics Work?

Mechanism Of Action Of The Serotonin Dopamine Antagonists: P.S. I SAID IT. I'M CNS.© [1]

- **P**re-
- **S**ynaptically,
- **I**nterestingly,
- **S**erotonin
- **A**ntagonism
- **I**ncreases
- **D**opamine transmission
- **I**n the
- **T**ubero-
- **I**nfindibular, the
- **M**eso
- **C**ortical, and the
- **N**igro
- **S**triatal pathways.

1. Rosenberg LI. *The Authoritative Guide to Psychiatric Diagnosis.* 2002.

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