SimplePsych

Schizophrenia Spectrum Disorders

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Schizophrenia Spectrum Disorders

Catatonia

Introduction – 5 Key Domains

- 1) Delusions
  - Fixed beliefs, not amenable to change (despite conflicting evidence)
  - **Persecutory** → most common
  - **Referential**
  - **Grandiose**
  - **Erotomanic**
  - **Nihilistic**
  - **Somatic**

  - Bizarre vs non-bizarre
  - **Thought withdrawal, thought insertion, delusions of control**

Introduction – 5 Key Domains

- 2) Hallucinations
  - Perception-like experiences, WITHOUT external stimulus
  - Vivid + clear, full impact of normal perceptions, not under voluntary control
  - Any sensory modality → **AUDITORY** most common
  - Must be during **clear sensorium**
    - Hypnagogic (falling asleep) → within normal
    - Hypnopompic (waking up) → within normal
  - May be normal part of religious experience

Introduction – 5 Key Domains

- 3) Disorganized Thinking/Speech
  - Disorganized thinking **(formal thought disorder)** → inferred from speech
    - **Derailment, loose associations:** switching topics
    - **Tangentiality:** obliquely related/unrelated answers to questions
    - **Incoherence, "word salad":** nearly incomprehensible (like aphasia)
  - Can cause significant impairment → ineffective communication
    - May be less severe during prodromal/residual periods

Introduction – 5 Key Domains

- 4) Disorganized Motor Behavior
  - Varies → childlike silliness to unpredictable agitation

  - **Catatonic behavior** → marked decrease in reactivity to environment
    - **Negativism:** resistance to instruction
    - Maintaining rigid, inappropriate/bizarre posture
    - **Mutism/stupor:** complete lack of verbal/motor responses
    - **Catatonic excitement:** purposeless, excessive motor activity
    - Repeated stereotyped movements, staring, grimacing, echoing
    - Not specific to schizophrenia (can occur in AMD or AMC)

Introduction – 5 Key Domains

- 5) Negative symptoms
  - Accounts for **substantial portion of morbidity** in schizophrenia
    - Less prominent in other psychotic disorders
  - **Diminished emotional expression**
    - Face, eye contact, prosody (speech intonation), hands, head

  - **Avolition:** decrease in motivated, self-initiated purposeful activities
    - Little interest in participating in work/social activities
  - **Alogia:** decreased speech output
  - **Anhedonia:** decreased ability to experience pleasure
  - **Asociality:** lack of interest in social interactions
    - May be associated with avolition or lack of opportunities

Introduction

- Gradient of psychopathology
  - Domains, duration, exclusions
- Severity of mood symptoms in psychosis
  - **Prognostic value + guides treatment**
- Many have impairment in range of cognitive domains
  - **Predicts functional status**

Schizotypal (Personality) Disorder

Schizotypal (Personality) Disorder

- See personality disorder section

Delusional Disorder

Delusional Disorder – Diagnostic Criteria

A. 1+ delusions for **duration 1+ month**

B. Never met Criterion A for schizophrenia
- If hallucinations → not prominent, related to delusional theme

C. Function NOT markedly impaired, behavior NOT bizarre/odd
- Apart from impact of delusion/ramifications

D. If manic or major depressive episodes → **brief (relatively)**

E. Not due to substance or AMC, not better explained by AMD

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Delusional Disorder – Specifiers

- *Specify whether:*
  - **Persecutory type**
  - **Grandiose type**
  - **Erotomanic type**
  - **Jealous type**
  - **Somatic type**
  - **Mixed type**
  - **Unspecified type**

- *Specify if:*
  - **With bizarre content**

Delusional Disorder – Specifiers

- *Specify if:*
  - **First/multiple episodes, currently in acute/partial/full remission**
  - **Continuous**
  - **Unspecified**

- *Specify current severity (optional):*
  - Quantitative assessment of primary psychotic symptoms
  - Current severity (most severe in past days) → 0-4 scale

Delusional Disorder – Subtypes

- Erotomanic type → another person is in love with individual
  - Other person is usually higher status, can be complete stranger
  - Efforts to contact person is common

- Grandiose type → having great talent, insight, discovery
  - Less commonly, having special relationship with prominent person or being a prominent person
  - May have religious content

- Jealous type → unfaithful partner
  - Without due cause, incorrect inferences
  - Usually confronts partner, attempts to intervene

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Delusional Disorder – Diagnostic Features

- Criteria A-E

- Assessment of cognition, depression, manic symptoms vital

Delusional Disorder – Associated Features

- Social, marital, work problems may result

- May have "factual insight" → but no true insight
  - Many develop **irritable/dysphoric mood** → reaction to delusional beliefs
  - **Anger/violent behavior** → persecutory, jealous, erotomanic types
  - May engage in **litigious/antagonistic behavior**
  - **Legal difficulties** → jealous, erotomanic types

Delusional Disorder – Prevalence

- Lifetime prevalence = **0.2%**
  - Most frequent subtype → persecutory

- No overall gender differences
  - Jealous type more frequent in **MALES**

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Delusional Disorder – Development & Course

- Global function → BETTER than schizophrenia
  - Diagnosis **generally stable** → some develop schizophrenia
- Significant familial relationship with schizophrenia, schizotypal PD
- May be more prevalent in **older adults**

Delusional Disorder – Culture-Related Issues

- Consider variations in cultural + religious background

Delusional Disorder – Functional Consequences

- Usually MORE circumscribed (vs other psychotic disorders)

Delusional Disorder – Differential Diagnosis

- Obsessive-compulsive & related disorders
  - **OCD**, with absent insight/delusional beliefs
  - **Body dysmorphic disorder**, with absent insight/delusional beliefs
- Delirium, major NCD, psychotic disorder due AMC/substance
  - Major NCD, with behavioral disturbance
  - Chronological relationship to onset/remission
- Schizophrenia, schizophreniform disorder
  - Other active phase schizophrenia symptoms
- Depressive, bipolar, schizoaffective disorders
  - Temporal relationship between mood + delusions, severity of mood sx
  - Delusional disorder ONLY IF mood episode duration relative brief

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Brief Psychotic Disorder

Brief Psychotic Disorder – Diagnostic Criteria

A. **At 1+ of the following symptoms** (1 must be 1/2/3)

1. **Delusions**
2. **Hallucinations**
3. **Disorganized speech**
4. Grossly disorganized or catatonic behavior

B. Duration **1 day – 1 month**

- Eventual return to premorbid function

C. Not better explained by AMD, not due to substance or AMC

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Brief Psychotic Disorder – Specifiers

- *Specify if:*
  - **With marked stressors** (brief reactive psychosis)
  - **Without marked stressors**
  - **With postpartum onset:** during pregnancy, or within 4 weeks postpartum

- *Specify if:*
  - **With catatonia**

- *Specify current severity (optional):*
  - Quantitative assessment of primary psychotic symptoms
  - Current severity (most severe in past days) → 0-4 scale

Brief Psychotic Disorder – Diagnostic Features

- Sudden onset → of at least one positive psychotic symptom
  - Delusions, hallucinations, disorganized speech, abn motor behavior
  - **Within 2 weeks** (without prodrome)
  - **Duration 1 day – 1 month**

- Assessment of cognition, depression, manic symptoms vital

Brief Psychotic Disorder – Associated Features

- Emotional turmoil, overwhelming confusion
  - May have **rapid shifts in intense affect**
- May have severe level of impairment (despite brief)
  - Protect from consequences of poor judgement, cog impairment, acting on basis of delusions
- **Incr risk of suicidal behavior** (esp during acute episode)

Brief Psychotic Disorder – Prevalence

- Brief psychotic disorder = **9% of first-onset psychosis**
  - TWICE as common in **FEMALES**

- Longer duration (up to 6 mos) brief psychotic disorder
  - More common in developing countries

Brief Psychotic Disorder – Development & Course

- Onset
  - Can occur across lifespan → includes adolescence, early adulthood
  - **Average age = mid 30s**

- Duration
  - Up to 1 month (by definition) → then full remission, return of function
  - Some may be quite brief (few days)

Brief Psychotic Disorder – Risk & Prognostic Factors

- <u>Temperamental</u>
  - Pre-existing **personality disorder/traits** may predispose
    - Schizotypal, borderline PDs
    - Psychoticism traits (perceptual dysregulation)
    - Neuroticisms traits (suspiciousness)

Brief Psychotic Disorder – Culture-Related Issues

- Distinguish from culturally sanctioned response patterns
  - Religious ceremonies, etc

Brief Psychotic Disorder – Functional Consequences

- Excellent outcomes (despite high rates of relapse)
  - In terms of social functioning, symptomatology

Brief Psychotic Disorder – Differential Diagnosis

- Other medical conditions (direct physiological consequence)
  - Cushing's syndrome, brain tumor, etc.
- Substance-related disorder

- Depressive, bipolar disorders (with psychotic features)
- Other psychotic disorders
  - If persists longer than 1 month → distinguish if response to tx
  - May be recurrent disorder (bipolar, schizophrenia)
- Malingering, factitious disorder
  - Factitious disorder → predominant psychological signs (intentional)
  - Malingering → psychotic sx feigned for understandable goal
- Personality disorders
  - Psychological stressor may precipitate psychotic sx → usually transient
  - May dx brief psychotic disorder if duration >1 day

Schizophreniform Disorder

Schizophreniform Disorder – Diagnostic Criteria

A. 2+ of the following, each for 1+ month, 1 must be 1/2/3:

1. **Delusions
2. **Hallucinations
3. **Disorganized speech
4. Disorganized/catatonic behavior
5. Negative symptoms

B. Duration **1-6 months**

C. No significant mood episodes (not schizoaffective, MDD, bipolar)

D. Not due to substance or AMD

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Schizophreniform Disorder – Specifiers

- *Specify if:*
  - **With good prognostic features** (2+):
    - Onset of psychotic sx within 4 weeks of noticeable change
    - **Confusion/perplexity**
    - **NOT blunted/flat affect**
    - Good premorbid social/occupational functioning
  - **Without good prognostic features**

- *Specify if:*
  - **With catatonia**

- *Specify current severity (optional):*
  - Quantitative assessment of primary psychotic symptoms
  - Current severity (most severe in past days) → 0-4 scale

Schizophreniform Disorder – Diagnostic Features

- Characteristic symptoms → identical to schizophrenia

- Distinguished by DURATION of illness
  - **Includes prodromal, active, residual periods**
  - **1-6 months + already recovered**
  - **<6 months + not yet recovered** → provisional
    - If persists >6 months → schizophrenia

- Distinguished by LACK of required impaired functioning
  - May be present, but not necessary

- Assessment of cognition, depression, manic sx vital

Schizophreniform Disorder – Associated Features

- Same as schizophrenia
  - No lab or psychometric tests
  - No diagnostic neuroimaging, neuropathology, neurophysiological tests
    - Under research

Schizophreniform Disorder – Prevalence

- Incidence
  - US, developed countries → **LOW** (5x LESS than schizophrenia)
  - Developing countries → may be higher (esp with good prognostic features)
    - May be as common as schizophrenia

Schizophreniform Disorder – Development & Course

- Development → **similar to schizophrenia**
  - **One-third recover within 6 months**
  - Two-thirds eventually dx with **schizophrenia or schizoaffective disorder**

Schizophreniform Disorder – Risk & Prognostic Factors

- <u>Genetic & Physiological</u>
  - Relatives of schizophreniform disorder → **incr risk for schizophrenia**

Schizophreniform Disorder – Functional Consequences

- If eventually dx with schizophrenia/schizoaffective
  - Functional consequences SIMILAR
  - School, work, interpersonal relationships, self-care

- If recovery → BETTER functional outcomes

Schizophreniform Disorder – Differential Diagnosis

- Other mental disorder and medical conditions (with psychosis)
  - Psychotic disorders due to AMC (delirium, major NCD, TBI)
  - Sub/med-induced psychotic disorders
  - Depressive/bipolar disorder with psychotic features
  - Depressive/bipolar disorder with catatonic features
  - Other schizophrenia spectrum disorders
  - Cluster A personality disorders (paranoid, schizoid, schizotypal)
  - Autism spectrum disorders
  - ADHD, OCD, PTSD

Schizophrenia

Schizophrenia – Diagnostic Criteria

A. 2+ of following, 1-month period (one must be 1, 2 or 3)
   - *Can be shorter if successfully treated*
   1. ****Delusions**
   2. ****Hallucinations**
   3. ****Disorganized speech** (frequent derailment, incoherence)
   4. **Disorganized or catatonic behavior**
   5. **Negative symptoms** (diminished emotional expression, avolition)

B. Decreased level of functioning (failure to achieve expected level in children)

C. Continuous disturbance for 6+ months
   - At least 1 month of Criterion A
   - May have **prodromal/residual sx** (only negative sx *or* 2+ attenuated Criterion A sx)

D. No signifuicant mood episodes (not schizoaffective, MDD, bipolar)

E. Not due to substance or AMC

F. If history of **autism spectrum disorder or communication disorder**
   - Must have prominent **delusions *or* hallucinations**, for >1 month
   - Plus other required symptoms of schizophrenia

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Schizophrenia – Specifiers

- *Specify course (only after 1 year)*
  - **First/multiple episodes, currently in acute/partial/full remission**
  - **Continuous**
    - Diagnostic sx present for majority of illness course
    - Subthreshold sx periods very brief, relative to overall course
  - **Unspecified**

- *Specific if:*
  - **With catatonia**

- *Specify current severity (optional):*
  - Quantitative assessment of primary psychotic symptoms
  - Current severity (most severe in past days) → 0-4 scale

Schizophrenia – Diagnostic Features

- Heterogeneous (no single pathognomonic sx)
  - Cognitive, behavioral, emotional dysfunction
  - Impaired occupational/social functioning
  - Assess cognition, depression, mania → distinguish from other dx

- A) 2+/5, >1 month, 1 of A1/A2/A3
  - **A1) Delusions, A2) Hallucinations, A3) Disorganized Speech**
  - A4) Grossly disorganized/catatonic behavior
  - A5) Negative symptoms
  - If symptoms remit within 1 month of treatment, Criterion A still met if symptoms **believed to have persisted without treatment**

Schizophrenia – Diagnostic Features

- B) Impairment in major areas of functioning
  - In C&A → expected level of function not attained (compare with siblings)
  - Persistent dysfunction → not DIRECT result of single feature

- C) Continuous disturbance for >6 months

- Prodromal/residual sx
  - Mild/subthreshold hallucinations, delusions
  - Unusual/odd beliefs → not delusional intensity
  - Unusual perceptual experiences
  - Vague speech, but understandable
  - Unusual behavior, not grossly disorganized
  - Negative symptoms COMMON, can be SEVERE
    - **Social withdrawal** often first sign

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Schizophrenia – Diagnostic Features

- <u>Mood symptoms/episodes COMMON</u>
  - But requires **delusions/hallucinations WITHOUT mood episodes**
  - Mood episodes should be **MINORITY of total illness duration**
  - Not schizoaffective disorder, mood disorder with psychotic features

- Assessment of cognition, depression, manic sx vital

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Schizophrenia – Associated Features

- Mood + anxiety symptoms
  - **Affect** → inappropriate, dysphoria, anger, anxiety
  - **Sleep** → disturbed pattern, day-night reversal
  - **Appetite** → lack of interest/appetite, food refusal
  - **Derealization, depersonalization, somatic** concerns
  - **Anxiety, phobias** common

- Cognitive deficits → common, impairing
  - Declarative memory, working memory
  - Language, executive function
  - **Slowed processing, sensory processing**
  - Inhibitory capacity, attention
  - **Social deficits** → theory of mind, misinterpretation (explanatory delusions)
  - **Frequently persist** (despite symptomatic remission)

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Schizophrenia – Associated Features

- Lack of insight/awareness
  - May be present throughout entire course of illness
  - NOT coping strategy → typically sx of schizophrenia itself
    - Similar to **anosognosia** (neurological deficit following brain damage)
  - Is the MOST common **predictor of non-adherence to treatment**
    - Higher relapse rates
    - More involuntary treatments
    - Poorer psychosocial functioning
    - Aggression
    - Poorer course of illness

- Hostility, aggression → associated, but uncommon
  - More frequent in **younger males, substance abuse, impulsivity**
  - Increased risk if history of **past violence, non-adherence to treatment**
  - **vast majority NOT aggressive, actually more frequently victimized

Schizophrenia – Associated Features

- No radiological, lab, psychometric diagnostic tests

- Differences in multiple brain regions
  - Cellular architecture, white matter connectivity, gray matter volume decreased
    - **Prefrontal + temporal cortices**
  - **Decreased overall brain volume → progressive reduction rate with age**
  - **Eye tracking, electrophysiological indices**

- Neurological soft signs
  - Motor coordination, motor sequencing of complex movements
  - Left-right confusion, sensory integration, disinhibition of movements

- May have minor physical anomalies of face/limbs

Schizophrenia – Prevalence

- Lifetime prevalence = 0.3 – 0.7%
  - Variation by race/ethnicity, country, geographic origin of immigrants, children of immigrants

- Sex differences depends on definition
  - Negative symptoms, longer duration (poorer outcomes) → **MALES**
  - Mood symptoms, brief presentations (better outcomes) → **EQUAL**

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Schizophrenia – Development & Course

- Onset
  - Psychotic features typically emerge → **late teens to mid 30s**
    - Onset prior to adolescence rare
  - Peak age of onset
    - **MALES = early-mid 20s**
    - **FEMALES = late 20s**
  - Slow + gradual development in majority → **50% have depressive sx**
  - **Earlier onset → worse prognosis** (likely related to gender)
    - **MALES** → worse premorbid adjustment, lower education, more negative sx, more cognitive impairments → worse outcomes
  - **Impaired cognition common** → during development, precede psychosis
    - Can **be stable cognitive impairments** during adulthood
    - May persist during remission + contribute to disability

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Schizophrenia – Development & Course

- Course
  - Predictors largely unexplained, not reliably predicted
  - **20% favorable course** → small number completely recover
  - **Most remain chronically ill** → episodic or progressive deterioration
    - Require daily living supports
  - With aging → psychotic sx tend to diminish (?decline in dopamine activity)
    - **Negative sx** → MORE closely related to prognosis, tend to be persistent
    - **Cognitive deficits** may not improve

Schizophrenia – Development & Course

- In childhood → essential features same, more difficult to dx
  - Delusions, hallucinations **LESS elaborate**
    - VH more common, distinguish from normal fantasy play
  - Disorganized speech/behavior occurs in many childhood disorders
  - **Childhood-onset cases** → resemble **poor-outcome** adult cases
    - Gradual onset, **prominent negative sx**
  - **Children who later receive dx** → more likely to have:
    - Nonspecific **emotional-behavioral disturbances**/psychopathology
    - **Intellectual, language alterations** + subtle **motor delays**

- Late-onset cases (age >40)
  - **More FEMALES**, married
  - More psychotic symptoms → **preservation of affect, social function**
  - Not clear whether same condition as mid-life onset

Schizophrenia – Risk & Prognostic Factors

- Environmental
  - Season of birth → **late winter, early spring** (summer for deficit form)
  - **Urban environment**
  - **Some minority ethnic groups**

- Genetic & Physiological
  - Most dx of schizophrenia → **NO family history**
  - Strong contribution of genetic factors, spectrum of alleles
    - Association with other mental disorders (bipolar, depression, autism)

  - **Pregnancy/birth complications**
    - Hypoxia, stress, infection, malnutrition, maternal diabetes
    - Vast majority DO NOT develop schizophrenia

  - **Greater paternal age**

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Schizophrenia – Culture-Related Issues

- Must consider cultural + socioeconomic factors
  - Hallucinations with religious content
  - Linguistic variations in narrative style
  - Styles of emotional expression, eye contact, body language
  - Language barriers
  - Pseudo-hallucinations under stress may be normative

Schizophrenia – Gender-Related Issues

- **In FEMALES**
  - **Lower incidence**
  - Later age of onset, second mid-life peak
  - **LESS negative symptoms**, less disorganization
  - Social functioning better preserved

  - **MORE psychotic symptoms**, more likely to worsen later in life
  - **MORE affective symptoms**

Schizophrenia – Suicide Risk

- **5-6%** → die by suicide
- **20%** → attempt suicide

- May be in response to command hallucinations

- Suicide risk → HIGH over lifespan
  - Esp high for **younger males with comorbid substance use**
  - **Depressive sx**, feelings of hopelessness
  - Being **unemployed**
  - **Right after psychotic episode or hospital discharge**

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Schizophrenia – Functional Consequences

- <u>Significant social + occupational dysfunction</u>
  - Impairs educational progress, maintaining employment
  - Most are employed at **lower level than parents**
  - **Most DO NOT marry** (especially men)
  - Limited social contacts outside family

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Schizophrenia – Differential Diagnosis

- MDD, bipolar disorder with psychotic/catatonic features
  - Temporal relationship + severity of mood disturbances
- Schizoaffective disorder
  - Concurrent mood episodes during MAJORITY of total illness duration
- Schizophreniform, brief psychotic disorder
- Delusional disorder (just delusions)
- Schizotypal personality disorder (subthreshold)
- OCD, body dysmorphic disorder (with poor/absent insight)
- PTSD (flashbacks, hypervigilance)
- Psychotic disorder due to substance, AMC

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Schizophrenia – Comorbidity

- Substance use disorders → HIGH comorbidity
  - **>50% tobacco use disorder,** smoke cigarettes regularly

- Anxiety disorders → higher rates of OCD, panic disorder
- Schizotypal or paranoid PD → may precede onset

- Decreased life expectancy (due to assoc medical conditions)
  - Wt gain, **metabolic syndrome**, DM2, CV, pulmonary → more common
  - **Incr risk of chronic disease**
    - Poor engagement in health maintenance
    - Medication, lifestyle, smoking, diet
  - **Shared vulnerability** for psychosis + medical disorders

Schizoaffective Disorder

Schizoaffective Disorder – Diagnostic Criteria

A. Major mood episode concurrent with schizophrenia Criterion A

B. Delusion/hallucinations for ≥2 weeks, WITHOUT mood episode

C. Concurrent mood episodes present for **MAJORITY of illness**

D. Not due to substance or AMC

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Schizoaffective Disorder – Specifiers

- *Specify whether:*
  - **Bipolar type**
  - **Depressive type**

- *Specific if:*
  - **With catatonia**

- *Specify course (only after 1 year)*
  - **First/multiple episodes, currently in acute/partial/full remission**
  - **Continuous**
  - **Unspecified**

- *Specify current severity (optional):*
  - Quantitative assessment of primary psychotic symptoms
  - Current severity (most severe in past days) → 0-4 scale

Schizoaffective Disorder – Diagnostic Features

- Dx based on uninterrupted period of illness with psychotic sx
  - Usually made during period of psychosis
  - Needs to meet **Criterion A of schizophrenia**
    - **NOT Criterion B** (social dysfunction)
    - NOT Criterion F (not autism, not communication disorder)

- Major mood episodes
  - If MDD → must have **pervasive depressed mood** (not just anhedonia)
  - Present for **majority of total illness duration**

- Delusions/hallucinations WITHOUT mood episode, for ≥2 weeks
  - At some point during lifetime duration of illness
  - To **distinguish from mood disorder with psychotic features**

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Schizoaffective Disorder – Associated Features

- Functional impairment common
  - Not defining criterion (unlike schizophrenia)
  - Occupational, social, self-care
  - **Negative sx may be less severe/persistent** (vs schizophrenia)

- Related disorders
  - Increased risk for **mood episodes after remission** of schizophrenia sx
  - Associated **alcohol, substance use disorders**

- No tests/biological measures
  - Unclear if differences vs schizophrenia with regard to:
    - Brain abnormalities (structural/functional)
    - Cognitive deficits
    - Genetic risk factors

Schizoaffective Disorder – Prevalence

- Lifetime prevalence = **0.3%**
  - One-third as common as schizophrenia
  - Higher incidence in **FEMALES** (esp depressive type)

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Schizoaffective Disorder – Development & Course

- Onset → anytime from adolescence to late life
  - Typical age at onset = **early adulthood**
  - May be dx with another psychotic illness initially
  - **Prognosis BETTER** than schizophrenia → worse than mood disorders
  - **May convert FROM schizoaffective disorder** TO another disorder
    - As mood symptoms become less prominent (no longer majority)

- Variety of temporal patterns
  - Typical pattern: **AH/delusions first**, then concurrent MDE, MDE resolves, then psychotic sx persist until resolution
  - Expression of psychotic sx variable across lifespan
  - Mood sx can occur anytime (prodromal, active, residual, remission)

- **Bipolar type** → more common in **YOUNG adults**
- **Depressive type** → more common in **OLDER adults**

Schizoaffective Disorder – Risk & Prognostic Factors

- Genetic & Physiological
  - Increased risk of schizoaffective disorder in **first-degree relatives** with**:**
    - **Schizophrenia**
    - **Schizoaffective disorder**
    - **Bipolar disorder**

Schizoaffective Disorder – Culture-Related Issues

- Consider cultural + socioeconomic factors
  - May be overdiagnosis of schizophrenia vs schizoaffective disorder
    - In African American + Hispanic populations

Schizoaffective Disorder – Suicide Risk

- <u>Lifetime suicide risk</u>
  - Schizophrenia + schizoaffective disorder = **5%**
  - If depressive sx → HIGHER risk

- Higher risk in **North American** population
  - Vs European, Eastern European, South American, Indian populations

Schizoaffective Disorder – Functional Consequences

- Social + occupational dysfunction (not diagnostic criterion)
  - Substantial variability

Schizoaffective Disorder – Differential Diagnosis

- Other mental disorder, medical conditions (with psychosis)
- Psychotic disorder due to AMC
- Schizophrenia, bipolar, depressive disorders

Schizoaffective Disorder – Comorbidity

- Many diagnosed with other mental disorders
  - Esp **SUDs, anxiety disorders**

- Increased incidence of medical conditions → **decreased life expectancy**

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Substance/Medication-Induced Psychotic Disorder

Sub/Med-Induced Psychosis – Diagnostic Criteria

A. Either **delusions or hallucinations** (or both)
   - Predominate clinical picture + severe enough to warrant clinical attention

B. <u>History, physical exam, lab findings of:</u>
   1. Symptom onset **during/soon after** → intoxication, withdrawal, exposure
   2. Substance/medication **capable** of producing symptoms

C. <u>Not non-substance/medication-induced</u>
   1. Symptom onset preceding sub/med use
   2. Symptom persistence after cessation of sub/med use/intox/withdrawal
   3. Other evidence (previous non-sub/med-induced episodes)

D. Not exclusively during **delirium**

E. Significant distress or impairment

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Sub/Med-Induced Psychosis – Specifiers

- *Specify substance:*
  - Alcohol
  - Cannabis
  - PCP
  - Other hallucinogen
  - Inhalant
  - Sedative, hypnotic or anxiolytic
  - Amphetamine (or other stimulant)
  - Cocaine
  - Other (or unknown) substance

- *Specify onset:*
  - **With onset during intoxication**
  - **With onset during withdrawal**

- *Specific current severity (optional)*

Sub/Med-Induced Psychosis – Diagnostic Features

- Delusions/hallucinations due to physiological effect of sub/med
  - If individual **realizes** hallucinations are due to sub/med → do NOT dx
    - Dx substance intoxication/withdrawal "with perceptual disturbances"

- Distinguished by onset, course, other factors
  - Psychotic sx may continue if sub/med use continues
  - Atypical features
    - **Onset in age >35** (without known hx of primary psychotic disorder)

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Sub/Med-Induced Psychosis – Associated Features

Sub Intoxication	Sub Withdrawal	Medications	Toxins
• Alcohol • Cannabis • Hallucinogens • PCP • Inhalants • Sedatives • Hypnotics • Anxiolytics • Stimulants • Cocaine • Other • ***(NOT OPIOIDS)***	• Alcohol • Sedatives • Hypnotics • Anxiolytics • Other	• Anesthetics • Analgesics • Anticholinergics • Anticonvulsants • Antihistamines • Antihypertensives • CV meds • Antimicrobials • Antiparkinsonians • Chemotherapy • Corticosteroids • GI meds • Muscle relaxants • NSAIDs • Phenylephrine • Pseudoephedrine • Antidepressants • Disulfiram	• Anticholinesterase organophosphate insecticides • Sarin, nerve gases • Carbon monoxide • Carbon dioxide • Volatile substance (fuel, paint)

Sub/Med-Induced Psychosis – Prevalence

- Prevalence in general population = UNKNOWN

- First episode psychosis → **7-25% sub/med-induced**

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Sub/Med-Induced Psychosis – Development & Course

- **Polypharmacy** with prescription meds → increased risk in later life
  - Parkinsonian, cardiovascular (digoxin)

Alcohol	Stimulant	Cannabis
• Prolonged, heavy use • Mod-severe AUD	• Can be rapid onset (cocaine within minutes)	• Can be shortly after high-dose use
• **Usually AH**	• Persecutory delusions • Formication (bugs crawling under skin), leading to scratching	• Persecutory delusions • Anxiety • Emotional lability • Depersonalization
	• Can persist **for weeks** despite removal of agent + antipsychotic tx	• Usually remits in 1 day • May persist for few days

Sub/Med-Induced Psychosis – Diagnostic Markers

- Relevant **blood levels**
  - Eg. Digoxin toxicity

Sub/Med-Induced Psychosis – Functional Consequences

- Severely disabling → but typically self-limiting
  - Frequently present to emergency/acute-care
  - **Resolves upon removal** of offending agent

Sub/Med-Induced Psychosis – Differential Diagnosis

- Substance intoxication/withdrawal, with perceptual disturbances
  - Intoxication: stimulants, cannabis, meperidine, PCP
  - **Intact reality testing** (recognizes perception in substance induced)

- Hallucinogen Persisting Perception Disorder
  - "Flashback" hallucinations, after hallucinogens stopped

- Delirium
  - Severe alcohol withdrawal

- Neurocognitive disorder with behavioral disturbance
  - BPSD delusions (major/mild NCD, with behavioral disturbance)

- Primary psychotic disorder
  - Not etiologically related to substance

- Psychotic disorder due to another medical condition
  - Medical condition vs treatment as cause → can be both
  - May need change in treatment to determine

Psychotic Disorder due to Another Medical Condition

Psychotic Disorder due to AMC – Diagnostic Criteria

A. Prominent **hallucinations or delusions**

B. Pathophysiological consequence of AMC
   - History, physical exam, lab findings

C. Not better explained by another mental disorder

D. Not exclusively during delirium

E. Significant distress or functional impairment

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Psychotic Disorder due to AMC – Specifiers

- *Specify if:*
  - **With delusions:** predominantly delusions
  - **With hallucinations:** predominantly hallucinations

- *Specify current severity*

Psychotic Disorder due to AMC – Diagnostic Features

- Hallucinations → any sensory modality
  - Olfactory → **temporal lobe epilepsy**
  - Vary (simple/unformed to highly complex/organized)
    - Depends on etiology, environmental factors

- Delusions → various themes
  - Most common = **persecutory**
  - No clear association with specific medical conditions

- **If intact reality testing** → not psychotic disorder

- Determining etiological relationship
  - Temporal association (onset, exacerbation, remission)
  - Atypical features (atypical age, visual/olfactory hallucinations)

Psychotic Disorder due to AMC – Associated Features

- Temporal association → greatest diagnostic certainty

- Concomitant treatments for underlying medical condition
  - Independent risk for psychosis (e.g. steroids)

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Psychotic Disorder due to AMC – Prevalence

- Lifetime prevalence = 0.2 – 0.5%
  - Higher in **age >65 = 0.74%**
    - May have higher prevalence in females among older pts
  - Varies by underlying medication conditions

- Most commonly associated medical conditions
  - Untreated **endocrine, metabolic disorders**
  - **Autoimmune disorders** (SLE, NMDA receptor autoimmune encephalitis)
  - **Temporal lobe epilepsy**

- Psychosis due to epilepsy
  - Ictal, post-ictal, inter-ictal psychosis
  - Most common = **post-ictal psychosis → 2-8% of epilepsy pts**

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Psychotic Disorder due to AMC – Development & Course

- Course
  - May be single, transient state OR recurrent, cycling episodes
  - Often **resolves with treatment** of underlying medical conditions
  - But may persist:
    - After medical event (**focal brain injury**)
    - Chronic conditions (**multiple sclerosis, chronic inter-ictal psychosis**)

- Variation with age
  - Higher prevalence with **older age**
    - Medical burden (deleterious exposures, age-related processes)
    - Stroke, anoxic events, multiple system comorbidities
  - Younger age more affected if:
    - Epilepsy, head trauma, autoimmune disease, neoplasms

- Other risks
  - **Cognitive** impairment, **vision/hearing impairments** → lower threshold

Psychotic Disorder due to AMC – Risk & Prognostic Factors

- Course Modifiers
  - **Identification + treatment** = GREATEST IMPACT on course
  - **Pre-existing CNS injury** may have worse outcome
    - Eg. Head trauma, cerebrovascular disease

Psychotic Disorder due to AMC – Diagnostic Markers

- Diagnosis + diagnostic tests vary by condition

Neurological	Endocrine	Metabolic	Other
• Neoplasms • Cerebrovascular • Huntington's • Multiple sclerosis • Epilepsy • Auditory/visual nerve injury • Deafness • Migraine • CNS infections	• Thyroid abn • PTH abn • Cortisol abn	• Hypoxia • **Hypercarbia** • Hypoglycemia • Fluid/electrolyte imbalances	• Liver disease • Renal disease • CNS autoimmune (SLE)

Psychotic Disorder due to AMC – Suicide Risk

- Not clearly delineated

- **Epilepsy, MS** → associated with **increased rates of suicide**
  - May be further increased with psychosis

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Psychotic Disorder due to AMC – Functional Consequences

- Typically severe → varies considerably by condition
  - **Likely improves with successful resolution**

Psychotic Disorder due to AMC – Differential Diagnosis

- Delirium
  - Psychotic symptoms cannot be exclusively during delirium
- Neurocognitive disorder with behavioral disturbance (BPSD)
- Sub/Med-Induced Psychotic disorder
  - Temporal association → can be both
- Psychotic disorders, mood disorders with psychotic features
  - No specific/direct causative physiological mechanism
  - If late age, no personal/family history → rule out due to AMC
  - **AH → more likely schizophrenia**
  - Other hallucinations → rule out due to AMC, substance-induced

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Psychotic Disorder due to AMC – Comorbidity

- In pts **age >80** → assoc with comorbid **major NCD (dementia)**

Other Specified Psychotic Disorders

Other Specified Psychotic Disorders

- Does not meet full criteria
- Clinician chooses to communicate specific reason

- Persistent auditory hallucinations (without any other features)

- Delusions with significant overlapping mood episodes

- Attenuated psychosis syndrome

- Delusional sx in partner of individual with delusional disorder

Unspecified Psychotic Disorder

Unspecified Psychotic Disorder

- Does not meet full criteria
- Clinician chooses NOT to communicate specific reason

Catatonia

Catatonia – Introduction

- Occurs in context of several disorders
  - Neurodevelopmental, psychotic, bipolar, depressive disorder, AMC
  - Not independent class

- 3/12 psychomotor features

- In extreme cases, may wax/wane with incr/decr motor activity
  - May need supervision (prevent self-harm, harming others)
  - Potential risks → **malnutrition, exhaustion, hyperpyrexia, self-injury**

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Catatonia Associated with Another Mental Disorder (Catatonia Specifier)

Catatonia Specifier – Diagnostic Criteria

A. 3/12 symptoms

1. **Stupor** (no psychomotor activity)
2. **Catalepsy** (passive induction of posture against gravity)
3. **Waxy flexibility** (slight, even resistance to positioning)
4. **Mutism** (minimal verbal response)
5. **Negativism** (opposition to instructions/external stimuli)
6. **Posturing** (spontaneous + active maintenance of posture against gravity)
7. **Mannerism** (odd caricature of normal actions)
8. **Stereotypy** (repetitive, abnormal purposeless movements)
9. **Agitation** (not influenced by external stimuli)
10. **Grimacing**
11. **Echolalia** (mimicking others' speech)
12. **Echopraxia** (mimicking others' movements)

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Catatonia Specifier – Diagnostic Features

- Typically diagnosed in inpatient setting
  - Occurs in up to **35% of schizophrenia**
  - MAJORITY of cases → **depressive or bipolar disorders**

- Must rule out AMC (infectious, metabolic, neurological)

- Can be side effect of medication
  - May be attributable to **neuroleptic malignant syndrome**

Catatonia Due to AMC

Catatonia due to AMC – Diagnostic Criteria

A. 3/12 symptoms
   1. **Stupor** (no psychomotor activity)
   2. **Catalepsy** (passive induction of posture against gravity)
   3. **Waxy flexibility** (slight, even resistance to positioning)
   4. **Mutism** (minimal verbal response)
   5. **Negativism** (opposition to instructions/external stimuli)
   6. **Posturing** (spontaneous + active maintenance of posture against gravity)
   7. **Mannerism** (odd caricature of normal actions)
   8. **Stereotypy** (repetitive, abnormal purposeless movements)
   9. **Agitation** (not influenced by external stimuli)
   10. **Grimacing**
   11. **Echolalia** (mimicking others' speech)
   12. **Echopraxia** (mimicking others' movements)

B. Pathophysiological consequence of AMC (with findings)

C. Not better explained by another mental disorder

D. Not exclusively during delirium

E. Significant distress or functional impairment

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Catatonia due to AMC – Diagnostic Features

- Judged to be attributed to physiological effects of AMC
  - Evidence from history, physical, lab findings

Catatonia due to AMC – Associated Features

- Findings, prevalence, onset reflect underlying AMC

Neurological conditions	Metabolic conditions
• Neoplasms • Head trauma • Cerebrovascular disease • Encephalitis	• **Hypercalcemia** • **Hepatic encephalopathy** • **Homocystinuria** • DKA

Catatonia due to AMC – Differential Diagnosis

- Not given if exclusively during delirium or NMS

- If taking neuroleptics, consider:
  - Medication-induced movement disorders
  - NMS

- Catatonic assoc with AMD

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Unspecified Catatonia

Unspecified Catatonia

- Does not meet full criteria or insufficient information