Authors: **Murphy, Michael J.; Cowan, Ronald L.**

Title: ***Blueprints Psychiatry, 5th Edition***

Abbreviations

Abbreviations

AA

Alcoholics Anonymous

ABG

Arterial blood gas

ACLS

Advanced cardiac life support

ADHD

Attention-deficit/hyperactivity disorder

ASP

Antisocial personality disorder

BAL

Blood alcohol level

BID

Twice daily

CBC

Complete blood count

CBT

Cognitive-behavioral therapy

CNS

Central nervous system

CO_2

Carbon dioxide

CPR

Cardiopulmonary resuscitation

CSF

Cerebrospinal fluid

CT

Computerized tomography

CVA

Cerebrovascular accident

DBT

Dialectical behavior therapy

DID

Dissociative identity disorder

DT

Delirium tremens

ECT

Electroconvulsive therapy

EEG

Electroencephalogram

ECG

Electrocardiogram

EPS

Extrapyramidal symptoms

EW

Emergency ward

FBI

Federal Bureau of Investigation

5HIAA

5-hydroxy indoleacetic acid

5HT

5-hydroxy tryptamine

GABA

Gamma-amino butyric acid

GAD

Generalized anxiety disorder

GHB

Gamma-hydroxybutyrate

GI

Gastrointestinal

HPF

High power field

HIV

Human immunodeficiency virus

ICU

Intensive care unit

IM

Intramuscular

IPT

Intrapersonal therapy

IQ

Intelligence quotient

IV

Intravenous

LP

Lumbar puncture

LSD

Lysergic acid diethylamine

MAOI

Monoamine oxidase inhibitor

MCV

Mean corpuscular volume

MDMA

Ecstasy

MR

Mental retardation

MRI

Magnetic resonance imaging

NIDA

National Institute on Drug Abuse

NMS

Neuroleptic malignant syndrome

OCD

Obsessive-compulsive disorder

PCA

Patient controlled analgesia

PMN

Polymorphonuclear leukocytes

PO

By mouth

PTSD

Posttraumatic stress disorder

QD

Each day

REM

Rapid eye movement

SES

Socioeconomic status

SSRI

Selective serotonin reuptake inhibitor

TD

Tardive dyskinesia

T4

Tetra-iodo thyronine

T3

Tri-iodo thyronine

TCA

Tricyclic antidepressant

TID

Three times daily

TSH

Thyroid-stimulating hormone

WBC

White blood cell count

WISC-R

Wechsler Intelligence Scale for Children—Revised

Authors: **Murphy, Michael J.; Cowan, Ronald L.**
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Authors

Michael J. Murphy MD, MPH
Medical Director
Vanderbilt Psychiatric Hospital
Assistant Professor of Psychiatry
Vanderbilt University School of Medicine
Nashville, Tennessee

Ronald L. Cowan MD, PhD
Director
Psychiatric Neuroimaging Program
Assistant Professor of Psychiatry
Assistant Professor of Radiology and Radiological Sciences
Vanderbilt University School of Medicine
Nashville, Tennessee

Contributors

Michelle Brooks MD
Resident in Adult Psychiatry, Vanderbilt University
Nashville, Tennessee

Vidya Raj MD
Resident in Adult Psychiatry, Vanderbilt University
Nashville, Tennessee

Faculty Advisor

Lloyd I. Sederer MD
Medical Director, Office of Mental Health
Albany, New York

Authors: **Murphy, Michael J.; Cowan, Ronald L.**
Title: ***Blueprints Psychiatry, 5th Edition***

Preface

Blueprints in Psychiatry was conceived by a group of recent medical school graduates who saw that there was a need for a thorough yet compact review of psychiatry that would adequately prepare students for the USMLE yet would be digestible in small pieces that busy residents can read during rare moments of calm between busy hospital and clinical responsibilities. Many students have reported that the book is also useful for the successful completion of the core and advanced psychiatry clerkships. We believe that the book provides a good overview of the field that the student should supplement with more in-depth reading. Before Blueprints, we felt that review books were either too cursory to be adequate or too detailed in their coverage for busy readers with little free time. We have kept the content current by repeated updates and revisions of the book while retaining a balance between comprehensiveness and brevity. This new edition reflects changes in response to user feedback. The structure of the book mirrors the major concepts and therapeutics of modern psychiatric practice. We cover each major diagnostic category, each major class of somatic and psychotherapeutic treatment, legal issues, and special situations that are unique to the field. In this edition we have included new images, 25% more USMLE study questions, and a Neural Basis section for each major diagnostic category. We recommend that those preparing for USMLE read the book in chapter order but cross reference when helpful between diagnostic and treatment chapters. We hope that Blueprints in Psychiatry fits as neatly into your study regimen as it fits into your backpack or briefcase. You never know when you'll have a free moment to review for the boards!

Michael J. Murphy MD, MPH

Authors: **Murphy, Michael J.; Cowan, Ronald L.**
Title: ***Blueprints Psychiatry, 5th Edition***

Chapter 1
Psychotic Disorders

Psychotic disorders are a collection of disorders in which **psychosis,** defined as a gross impairment in reality testing, predominates the symptom complex. Specific psychotic symptoms include delusions, hallucinations, ideas of reference, and disorders of thought. Table 1-1 lists the *Diagnostic and Statistical Manual of Mental Disorders,* 4th edition (DSM-IV) classification of the psychotic disorders.

It is important to understand that psychotic disorders are different from mood disorders with **psychotic features.** Patients can present with a severe episode of depression and have delusions or with a manic episode with delusions and hallucinations. These patients do not have a primary psychotic disorder; rather, their psychosis is secondary to a mood disorder.

The diagnoses described below are among the most severely disabling of mental disorders. Disability is due in part to the extreme degree of social and occupational dysfunction associated with these disorders.

NEURAL BASIS

Much of our understanding of the neural basis for psychotic disorders is based in research on schizophrenia. Schizophrenia is currently considered a neurodevelopmental illness. Reduced regional brain volume, with enlarged cerebral ventricles is a hallmark finding. Brain volume is reduced in limbic regions including amygdala, hippocampus, and parahippocampal gyrus. The prefrontal cortex microanatomy is altered.

Thalamic and basal ganglia regions are also affected. Altered dopamine function is strongly implicated in positive and negative symptoms of schizophrenia. γ-aminobutyric acid, glutamate, and the other monoamine neurotransmitters are also likely affected.

SCHIZOPHRENIA

Schizophrenia is a disorder in which patients have psychotic symptoms and social or occupational dysfunction that persists for at least 6 months.

EPIDEMIOLOGY

Schizophrenia affects 1% of the population. The typical age of onset is the early 20s for men and the late 20s for women. Women are more likely to have a "first break" later in life; in fact, about one-third of women have an onset of illness after age 30. Schizophrenia is diagnosed disproportionately among the lower socioeconomic classes; although theories exist for this finding, none has been substantiated.

RISK FACTORS

Risk factors for schizophrenia include genetic risk factors (family history), prenatal and perinatal factors such as difficulties or infections during maternal pregnancy or delivery, neurocognitive abnormalities such as low premorbid intelligence quotient (IQ) or early childhood neurodevelopmental difficulties, urban living, migration to a different culture, and cannabis use (especially in susceptible individuals).

▪ **TABLE 1-1 Psychotic Disorders**

Schizophrenia
Schizophreniform disorder

Schizoaffective disorder
Brief psychotic disorder
Shared psychotic disorder
Delusional disorder

ETIOLOGY

The etiology of schizophrenia is unknown. There is a clear inheritable component, but familial incidence is sporadic, and schizophrenia does occur in families with no history of the disease. Schizophrenia is widely believed to be a neurodevelopmental disorder. The most notable theory is the **dopamine hypothesis,** which posits that schizophrenia is due to hyperactivity in brain dopaminergic pathways. This theory is consistent with the efficacy of antipsychotics (which block dopamine receptors) and the ability of drugs (such as cocaine or amphetamines) that stimulate dopaminergic activity to induce psychosis. Postmortem studies have also shown higher numbers of dopamine receptors in specific subcortical nuclei of those with schizophrenia than in those with normal brains. More recent studies have focused on structural and functional abnormalities through brain imaging of patients with schizophrenia and control populations. No one finding or theory to date suffices to explain the etiology and pathogenesis of this complex disease.

▪ TABLE 1-2 Positive and Negative Symptoms of Schizophrenia

Negative Symptoms	
Affective flattening	Decreased expression of emotion, such as lack of expressive gestures
Alogia	Literally “lack of words,” including poverty of speech and of speech content in response to a question

Asociality	Few friends, activities, interests; impaired intimacy, little sexual interest
Positive Symptoms	
Hallucinations	Auditory, visual, tactile, or olfactory hallucinations; voices that are commenting
Delusions	Often described by content; persecutory, grandiose, paranoid, religious; ideas of reference, thought broadcasting, thought insertion, thought withdrawal
Bizarre behavior	Aggressive/agitated, odd clothing or appearance, odd social behavior, repetitivestereotyped behavior
Adapted from Andreasen NC, Black DW. *Introductory Textbook of Psychiatry,* 3rd ed. Washington, DC: American Psychiatric Publishing, 2001.	

CLINICAL MANIFESTATIONS

History and Mental Status Examination

Schizophrenia is a disorder characterized by symptoms that have been termed **positive** and **negative symptoms,** by a pattern of **social and occupational deterioration,** and by persistence of the illness for at least **6 months.** Positive symptoms are characterized by the **presence** of unusual thoughts, perceptions, and behaviors (e.g., hallucinations, delusions, agitation); negative symptoms are characterized by the **absence** of normal social and mental functions (e.g., lack of motivation, isolation, anergia, and poor selfcare). The positive versus negative distinction was made in a nosologic attempt to identify subtypes of schizophrenia, as well as because some medications seem to be more effective in treating negative symptoms. Clinically, patients often exhibit both positive and negative symptoms at the same time. Table 1-2 lists common positive and negative symptoms.

To make the diagnosis, two (or more) of the following criteria must be met: hallucinations, delusions, disorganized speech, grossly disorganized or catatonic (mute or posturing) behavior, or negative symptoms. There must also be social or occupational dysfunction. The patient must be ill for at least 6 months.

Patients with schizophrenia generally have a history of abnormal premorbid functioning. The prodrome of schizophrenia includes poor social skills, social withdrawal, and unusual (although not frankly delusional) thinking. Inquiring about the premorbid history may help to distinguish schizophrenia from a psychotic illness secondary to mania or drug ingestion.

▪ TABLE 1-3 Subtypes of Schizophrenia

Paranoid	Paranoid delusions, frequent auditory hallucinations, affect *not* flat
Catatonic	Motoric immobility or excessive, purposeless motor activity; maintenance of a rigid posture; echolalia
Disorganized	Disorganized speech, disorganized behavior, flat or inappropriate affect; not catatonic
Undifferentiated (probably most common)	Delusions, hallucinations, disorganized speech, catatonic behavior, negative symptoms; *criteria not met for paranoid, catatonic, or disorganized*
Residual	Met criteria for schizophrenia, now resolved (i.e., no hallucinations, no prominent delusions, etc.) but residual negative symptoms or attenuated delusions, hallucinations, or thought disorder

Adapted from Andreasen NC, Black DW. *Introductory Textbook of Psychiatry,* 3rd ed. Washington, DC: American Psychiatric Publishing, 2001.

Patients with schizophrenia are at high risk for suicide. Approximately one-third will attempt suicide, and 10% will complete suicide. Risk factors for suicide include male gender, age younger than 30 years, chronic course, prior depression, and recent hospital discharge.

DSM-IV recognizes five subtypes of schizophrenia: paranoid, disorganized, catatonic, undifferentiated, and residual. The subtypes of schizophrenia are useful as descriptors but have not been shown to be reliable or

valid. Table 1-3 describes these subtypes.

Diagnostic Evaluation

The diagnostic evaluation for schizophrenia involves a detailed history, physical, and laboratory examination, preferably including brain magnetic resonance imaging (MRI). Medical causes, such as neuroendocrine abnormalities and psychostimulant abuse or dependence, and such brain insults as tumors or infection, should be ruled out.

Differential Diagnosis

The differential diagnosis of an acute psychotic episode is broad and challenging (Table 1-4). Once a medical or substance-related condition has been ruled out, the task is to differentiate schizophrenia from a schizoaffective disorder, a mood disorder with psychotic features, a delusional disorder, or a personality disorder.

MANAGEMENT

Antipsychotic agents are primarily used in treatment. These medications are used to treat acute psychotic episodes and to maintain patients in remission or with long-term illness. Antipsychotic medications are discussed in Chapter 11. Combinations of several classes of medications are often prescribed in severe or refractory cases. **Psychosocial treatments,** including stable reality-oriented psychotherapy, family support, psychoeducation, social and vocational skills training, and attention to details of living situation (housing, roommates, daily activities) are critical to the long-term management of these patients. Complications of schizophrenia include those related to antipsychotic medications, secondary consequences of poor healthcare and impaired ability to care for oneself, and increased rates of suicide. Once diagnosed, schizophrenia is a long-term remitting/relapsing disorder with impaired interepisode function. Poorer prognosis occurs with early onset, a history of head trauma, or comorbid substance abuse.

SCHIZOAFFECTIVE DISORDER

Patients with schizoaffective disorder have psychotic episodes that **resemble schizophrenia but with**

prominent mood disturbances. Their psychotic symptoms, however, must persist for some time in the absence of any mood syndrome.

EPIDEMIOLOGY

Lifetime prevalence is estimated at 0.5% to 0.8%. Age of onset is similar to schizophrenia (late teens to early 20s).

▪ TABLE 1-4 Causes of Acute Psychotic Syndromes

Major Psychiatric Disorders		
	Acute exacerbation of schizophrenia	Depression with psychotic features
	Atypical psychoses (e.g., schizophreniform)	Mania
Drug Abuse and Withdrawal		
	Alcohol withdrawal	Phencyclidine (PCP) and hallucinogens
	Amphetamines and cocaine	Sedative-hypnotic withdrawal
Prescription Drugs		
	Anticholinergic agents	
	Digitalis toxicity	
	Glucocorticoids and adrenocorticotropic hormone(ACTH)	

	Isoniazid	
	L-DOPA (3,4-dihydroxy-L-phenylalanine) and other dopamine agonists	
	Nonsteroidal anti-inflammatory agents	
	Withdrawal from monoamine oxidase inhibitors (MAOIs)	
Other Toxic Agents		
	Carbon disulfide	Heavy metals
Neurologic Causes		
	AIDS encephalopathy	Infectious viral encephalitis
	Brain tumor	Lupus cerebritis
	Complex partial seizures	Neurosyphilis
	Early Alzheimer's or Pick's disease	Stroke
	Huntington's disease	Wilson's disease
	Hypoxic encephalopathy	
Metabolic Causes		
	Acute intermittent porphyria	Hypo- and hypercalcemia
	Cushing's syndrome	Hypo- and hyperthyroidism

	Early hepatic encephalopathy	Paraneoplastic syndromes (limbic encephalitis)
Nutritional Causes		
	Niacin deficiency (pellagra)	Vitamin B_{12} deficiency
	Thiamine deficiency (Wernicke-Korsakoff syndrome)	

From Rosenbaum JF, Arana GW, Hyman SE, et al. *Handbook of Psychiatric Drug Therapy,* 5th ed. Philadelphia: Lippincott Williams & Wilkins, 2005.

RISK FACTORS

Risk factors for schizoaffective disorder are not well established but likely overlap with those of schizophrenia and affective disorders.

ETIOLOGY

The etiology of schizoaffective disorder is unknown. It may be a variant of schizophrenia, a variant of a mood disorder, a distinct psychotic syndrome, or simply a superimposed mood disorder and psychotic disorder.

CLINICAL MANIFESTATIONS

History and Mental Status Examination

Patients with schizoaffective disorder have the typical symptoms of schizophrenia and coincidentally a

major mood disturbance, such as a manic or depressive episode. They must also have periods of illness in which they have psychotic symptoms **without a major mood disturbance.** Mood disturbances need to be present for a substantial portion of the illness.

There are two subtypes of schizoaffective disorder recognized in the DSM-IV, **depressive** and **bipolar,** which are determined by the nature of the mooddisturbance episodes.

Diagnostic Evaluation

The diagnostic evaluation for schizoaffective disorder is similar to other psychiatric conditions and involves a detailed history, physical, and laboratory examination, preferably including brain magnetic resonance imaging. Medical conditions producing secondary behavioral symptoms should be ruled out.

Differential Diagnosis

Mood disorders with psychotic features, as in mania or psychotic depression, are different from schizoaffective disorder in that patients with schizoaffective disorder have persistence (for at least 2 weeks) of the psychotic symptoms after the mood symptoms have resolved. Schizophrenia is differentiated from schizoaffective disorder by the absence of a prominent mood disorder in the course of the illness.

It is important to distinguish the prominent negative symptoms of the patient with schizophrenia from the **lack of energy** or **anhedonia** in the depressed patient with schizoaffective disorder. More distinct symptoms of a mood disturbance (such as depressed mood and sleep disturbance) should indicate a true coincident mood disturbance.

MANAGEMENT

Patients are treated with medications that target the psychosis and the mood disorder. Typically, these patients require the **combination of an antipsychotic medication and a mood stabilizer.** Mood stabilizers are described in Chapter 13. An antidepressant or electroconvulsive therapy may be needed for an acute depressive episode. Psychosocial treatments are similar for schizoaffective disorder and schizophrenia. Complications of schizoaffective disorder include those related to antipsychotic and mood stabilizer medications, secondary consequences of poor healthcare and impaired ability to care for oneself, and increased rates of suicide. Prognosis is better than for schizophrenia and worse than for bipolar disorder or major depression. Patients with schizoaffective disorder are more likely than those with schizophrenia but