The Mental Status Examination

RICHARD BELL, M.D. and RICHARD C. W. HALL, M.D.
University of Texas Medical School at Houston and
Texas Research Institute of Mental Sciences, Houston, Texas

The mental status examination evaluates appearance and behavior, attitude, perception, orientation, judgment, cognition, abstraction and insight. It can be administered quickly and repetitively. This examination provides information to distinguish organic from "functional" illnesses and also provides objective data regarding the patient's improving or deteriorating sensorium. It helps substantiate clinical decisions on competence, potential for danger and hospitalization.

The mental status examination is a significant part of routine patient examination. Although many physicians regard it as either only peripherally relevant to the physical examination or as a technique to be used by a psychiatrist, neither of these assumptions is true.

Much information has been written about the use of the mental status examination, but unfortunately this information has been presented so verbosely and subjectively or so analytically that its clinical usefulness is undermined. The clinician must be able to communicate diagnostically valuable data to other investigators and to the record, so that a clear picture of the patient's mental capacities can be ascertained and documented. Even subtle fluctuations from day to day or year to year can be accurately and easily identified.

The ability to distinguish organic dysfunction (tremor, drugs, epilepsy, etc.) from psychiatric disturbances which are purely "functional" is particularly important to the nonpsychiatric clinician. A mental status examination will help determine which of these conditions exists and will provide other data of value in the differential diagnosis of the mentally disturbed. patient.

Presentation of Psychiatric Illnesses

In general, there are six major categories of psychiatric diagnoses (*Table 1*). No specific sign is pathognomonic. The brain has a limited number of ways to respond to insult; thus, several signs must often be considered together to narrow the diagnostic focus. Each category of illness has characteristic features which are useful in the initial assessment. Note that the mental status of a patient may vary over a period of time, so that retesting would be necessary to evaluate improvement or deterioration in the patient's condition.

The 10-Minute Mental Status Examination

This examination has a concise, convenient format. It evaluates a patient's current mental status and can be easily administered, clearly interpreted and offered repetitively during the treatment period. Advantages over classical interviews include simplicity, consistency and summation of the data for research purposes.

This examination investigates eight areas of mental function: (1) appearance and behavior; (2) attitude (attention, mood, affect); (3) perception; (4) orientation; (5) judgment; (6)cognition; (7) abstraction, and (8) insight. *Table 2* gives examples of these eight areas, as well as what is considered normal and abnormal.

What to Look for and What to Ask

Particular observations and questions have been developed which help the clinician assess the patient's current mental state. Examples of these questions follow.

APPEARANCE AND BEHAVIOR
ATTITUDE AND SENSORIUM

Data for these qualities are best obtained by observation. The mental status examination is initiated by asking the patient if he has had any difficulty with his memory or thinking. He is then asked: "Would you mind if I asked you a few questions to see how your memory is and to help me understand how you are thinking?" the examiner should then proceed with the following questions.

PERCEPTION

Hallucinations have been categorized into four types: (1) Auditory –"Do you ever have thoughts which are so loud that they sound like voices talking to you or about you?" (2) Visual—"Do you ever see things which are unusual, like people or animals that aren't there?" (3) tactile (somatesthetic)—"Do you ever have unusual feelings in your body, like you are being touched?" (4) gustatory, olfactory—"Do you ever experience odd or unusual smells or tastes?"

Illusions: "Are there times when things you look at or listen to seem to change for no apparent reason? Do shadows frighten you?"

Delusions have been categorized into four types: (1) Paranoid—"Have you had the feeling that there is something going on in this room that is different from what we are telling you? Do you feel people are watching you?" (2) Persecutory—"Do you often get the feeling that someone might be trying to harm you, might be out to get you?" (3) Alien control—"Do you sometimes get the feeling that there is an outside force or person in control of your thoughts or body?" (4) Thought insertion, broadcast, withdrawal—"Do you sometimes have the feeling that others are putting thoughts into your head against your will?" (Separate these from persuasion, social pressure, TV commercials, etc.) "Do you ever feel that your thoughts are being broadcast out into the room and can be heard by others? That someone is stealing thoughts out of your brain so that you can't thing them?"

ORIENTATION

Time: "What day of the week is today? What month? (Approximately) what day of the month? What year? What time of day is it now?"

Place: "What is the name of this building? What kind of a place is it?" (If necessary, suggest hotel, post office, hospital or ship.)

Person: "Who am I? What is his/her name (individual present who is familiar to patient)? What is your name?"

JUDGMENT

Personal: "If you were walking down the street and found an envelope on the sidewalk which was stamped, addressed and sealed , what should you do?" (Good: mail it. Fair: leave it there. Poor: open it.)

Social: "If you were in a crowded thearter watching a movie and you smelled smoke and saw fire, what should you do?" (Good: inform manager. Poor: shout "Fire!" and run out.)

COGNITION

Memory, short-term: "I'm going to give you an address to remember and in three minutes I'm going to ask you to repeat it to me." (Make sure the patient learns it the first time."

Immediate recall (digit span): "I'm going to give you some numbers and I want you to repeat them back to me." (Start with three digits. If the patient successfully recalls the numbers, go on to four and continue. Call out the numbers loudly, clearly and slowly, approximately one per second.)

Reversals (digits backward): "Now I'm going to give you some numbers and I want ou to repeat them to me—backward. For instance, if I say 1-2-3-, you say_____?" At this point ask the patient to recall the address memorized previously.

Concentration: "Start at 100 and count backward by sevens." (From 20 by threes for patients with a fifth grade education or less.) The patient should complete this in 30 to 40 seconds.

Calculation: First order—"If you got on a bus with a fare of 35¢, and you gave the bus driver 50¢, how much change would you get?" Second order—"If you went into a post office and bought six 8¢ stamps, and you gave the clerk $1, how much change would you get?"

ABSTRACTION

Similarities: "I'm going to give you the names of some things and I'm going to ask you how they are alike. For instance, if I asked, 'How are a table and a chair alike?', you might say that they are both pieces of furniture. Now, how are a hammer and a saw alike?" (Good: both are tools. Fair: both are made of metal and have sharp edges, etc. Bizarre: both are used to cut up corpses, etc.)

Absurdities: "I am going to make a statement and I want you to tell me what you think about it—not what you think it means, simply what you think about the statement itself." Statements such as these could be made: "Because his feet are too big, Joe puts his pants on over his head" and "They found the skull of Columbus as a six-year-old boy in Spain." (Good: "Absurd, ridiculous, you can't put your pants on over your head" and "Columbus was older than that when he discovered America." Poor: no reaction or "I feel sorry for Joe" and "Maybe it wasn't Columbus who discovered America.")

Proverb interpretation: "I'm going to give you some proverbs—some old sayings—and I would like you to tell me what they mean to you. There is no right or wrong answer. Have you ever heard the expression 'A stitch in time saves nine'? what does that mean to you?" (Answers may be appropriate, literal-to-concrete or bizarre.)

What Does It All Mean?

As a diagnostic tool, the mental status examination is designed to accomplish the following:

1. To distinguish between organic and functional disorders.
2. to standardize a patient's cognitive ability at a given point in time, thus permitting assessment of future improvement or deterioration.
3. To provide a legal document attesting to the specific examination of mental function.
4. To serve as a quantifying instrument to support the physician's decision in matters of competence, informed consent, committability and suicidal or homicidal tendencies.
5. To assist in constructing a picture of the whole person, in distinguishing pathology from normalcy, neurosis from psychosis and, within psychopathologies, to further classify subcategories of illness.

An evaluation of the patient's mental status can be drawn from the results of the examination. Examples of observations/conclusions follow.

APPEARANCE AND BEHAVIOR

The neurotic appears and behaves in a relatively normal manner; the psychotic's presentation may be bizarre. He may have odd posturing and mannerisms, be agitated or be extremely withdrawn. The psychotic (organic or functional) may dress in a slovenly, disheveled or bizarre manner.

Facial Expression. The neurotic generally presents a normal, appropriate countenance, while the organically psychotic individual may appear dazed or perplexed. The schizophrenic may have an expression which is either blank or piercing, suspicious or accusatory. Poor eye contact suggests anxiety, depression or psychosis.

Speech. Very loud or highly pressured speech is indicative of a hypomanic state and may be seen in manic-depressive illness or amphetamine intoxication. Very soft and halting speech, on the other hand, is more characteristic of depression.

Muteness indicates catatonia, which may be part of a schizophrenic (functional) psychosis or an organic psychosis, such as that produced by drugs (e.g., phencyclidine) or stroke. Monotonous speech may indicate depression, schizophrenia, or organic brain disease. Slurred speech is probably drug- or ethanol-induced, but one must include metabolic (hypoglycemia, hyperglycemia, hypercalcemia), iatrogenic (extrapyramidal reactions) and postictal states, and cranial nerve palsies in the differential diagnosis. Bizarre word content is pathognomonic of psychosis in the absence of central nervous system disease. Often seen are echolalia, incoherence, loose associations, rhyming, punning, "word salad" and neologisms.

ATTITUDE

Attention and Senorium. A short attention span is indicative of psychotically hypomanic, neurotically anxious or hysterical individuals. It is also seen in acute brain syndrome (delirium). A drowsy or somnolent individual may be under the influence of alcohol or drugs, metabolically impaired, postictal or malingering. If hyperalert, consider a diagnosis of acute schizophrenia, mania or intoxication with amphetamines or other central nervous system stimulants. If the patient's sensorium fluctuates rapidly, suspect acute organic brain syndrome.

Mood. Sadness suggests depression. Euphoria indicates hypomania or drug abuse. Inappropriate euphoria is also seen in schizophrenia and organic brain syndromes. Extreme anxiety and agitation are found in psychotic depression (manic-depressive illness and involutional melancholia), functional psychosis (excited form of catatonic schizophrenia and acute psychotic episodes), acute anxiety neurosis and panic reactions. Extreme anxiety and agitation are also found in acute organic brain syndromes, frequently caused by drug abuse or a medication reaction (e.g., barbiturates and diazepam used by the elderly). Anxiety is *not* a sign of conversion hysteria, where the patient typically displays indifference. Apathy is characteristic of depression, chronic schizophrenia and chronic organic brain syndrome.

Affect. An emotional expression or affect inappropriate to the situation can be found in hysterical conversion neuroses, organic brain syndrome and acute psychotic states. A flat or shallow affect is usually indicative of schizophrenia or psychotic depression. Lability of affect suggests organic brain syndrome, anxiety neurosis or a hysterical or cyclothymic personality disorder.

PERCEPTION

Hallucinations. Auditory hallucinations are not pathognomic of schizophrenia. They also occur in manic-depressive psychosis, unipolar psychotic depressions, involutional melancholia, organic brain syndromes and alcoholic hallucinosis. Visual hallucinations, on the other hand strongly suggest an organic etiology such as tumor, epilepsy or drug or alcohol withdrawal, and demand thorough medical investigation. Tactile hallucinations are most often seen in alcoholics and patients with central nervous system lesions, but may also occur with schizophrenia and psychotic depression. Gustatory and olfactory hallucinations should be considered as having organic origin (e.g., seizure phenomena or frontal meningioma) until proved otherwise.

Illusions. Distortion or misinterpretation in the perception of a real object (e.g., shadows become

spiders; slippers are rats) is suggestive of an underlying medical disorder.

Delusions. A fixed, unchangeable false belief which is not culturally acceptable is a delusion—not strictly a misperception, but an error in thinking. Among the most common delusions are those of persecution; often related are ideas of reference, i.e., another's words or gestures have special meanings. These delusions accompany paranoid states, which may be neurotic and mild or psychotic and vicious (e.g., schizophrenia, mania and amphetamine-induced psychosis). Other common delusions include those of grandeur (seen in mania, schizophrenia and organic brain syndrome), worthlessness, nihilism or self-accusation (with any depressive state; also with simple schizophrenia). Delusions of alien control, thought broadcast, insertion or withdrawal are considered to be highly suggestive of schizophrenia.

Other abnormal thoughts resembling delusions are feelings of unreality (derealization), which include *dèjà vu* ("I've done this before") and *jamais vu* (strangeness of familiar situations). While these feelings are sometimes normal, they are seen in neurotic, psychotic and organic states, in particular schizophrenia, hysterical dissociative reactions, drug psychoses and centrocephalic epilepsy.

Ambivalence. This is generally expressed as severe, paralyzing indecision about one's movements, but more specifically describes the ability to hold two antithetical thoughts or images simultaneously without being aware of the contradiction. In this degree, ambivalence signifies a schizophrenic process. In milder forms of ambivalence, indecision is often a product of anxiety neurosis; it may also indicate an obsessive-compulsive neurosis or a character disorder.

Phobias. These unrealistic fears are of specific, real objects or situations and are associated with psychoneurotic disorders.

ORIENTATION

As one's sensorium grows increasingly clouded, disorientation about time, place and person occurs (in this particular order). Personal identity usually remains until the disease is far advanced; hence, identity loss is indicative of a severe organic brain syndrome or, if the clinical picture belies this diagnosis, malingering. Disorientation to time alone is characteristic of acute organic brain syndrome and states of sensory deprivation. (Note that schizophrenia does not impair orientation.)

JUDGMENT

Impaired judgment suggests impulsiveness and disordered ability to respond to stress. It may be seen in character disorders; however, its presence in other conditions such as organic brain syndrome schizophrenia and mania indicates an increased likelihood of physical violence and homicidal or suicidal behavior. Decreased is the ability to follow directions for self care and compliance in taking medications.

COGNITION

Global impairment of cognition is indicative of organic brain dysfunction. Anxiety and depression may interfere with a patient's ability to perform serial subtractions and digit spans. Organically impaired patients are unable to do digital reversals; anxious patients perform poorly on *all* digital testing. The association of impaired memory and diminished cognition suggests organic brain disease until proved otherwise.

Total memory loss suggests hysteria or malingering. Organically impaired patients first lose short-term, then long-term memory. The ability to learn new material (three-item recall) is diminished in organic brain syndrome and in patients who are highly anxious.

ABSTRACTION

A diminished ability to associate logically (similarities), to recognize illogical constructs (absurdities) and to generalize from the particular (proverbs) suggests formal thought disorder, e.g., schizophrenia. Partial inability to abstract may be seen in psychotic organic brain syndrome.

INSIGHT

Insight is a measure of the patient's ability and willingness to cooperate in his therapy and, together with judgment, is a valuable prognostic indicator.

The Authors

RICHARD BELL, M.D.
is a clinical research fellow at the Texas Research Institute of Mental Sciences, Houston. He is a 1972 graduate of the University of California School of Medicine, Los Angeles. Dr. Bell interned at the Hospital of the Good Samaritan, Los Angeles, and served his residency in psychiatry at Los Angeles General Hospital.

RICHARD C.W. HALL, M.D.
is currently Director of the Clinical Research Unit, Texas Research Institute of Mental Sciences, Houston, and is assistant professor of psychiatry at the University of Texas Medical School, Houston. Dr. Hall completed his psychiatric residency training in 1972 at Johns Hopkins Hospital, Baltimore. He is certified by the American Board of Psychiatry and Neurology and also serves as an examiner for the American Board of Psychiatry and Neurology.

Table 1.

Psychiatric Diagnostic Classification*

Primary presentation	*Diagnostic category*
	AFFECTIVE DISORDERS
	Enogenous/unipolar/psychotic depression
Mood elevated or depressed	Manic-depression illness
Somatic complaints	Reactive depression
Insomnia	Atypical depression
Early morning awakening	Postpartum depression
Psychomotor activity	Involutional melancholia
Increased or retarded	Iatrogenic depression
	(e.g., from reserpine, methyldopa)
Bizarre behavior	FUNCTIONAL PSYCHOSES
Perceptive disorder	Schizophrenia
(hallucinations)	Schizo-affective disorder
Thought disorder (delusions)	Acute reactive psychosis
Insomnia:	Postpartum psychosis
Difficulty falling asleep	
Sleep continuity disorder	
Total insomnia	
	NEUROSES
	Anxiety
	Depression
	Hysterical behavior
Anxiety associated with diminished social performance	Conversion reaction
	Dissociative state
	Phobia
	Obsession-compulsion
	ORGANIC BRAIN SYNDROMES
	From drugs, alcohol, other toxins
Confusion	Trauma
Impaired memory	Disease
Impaired judgment	Central nervous system lesions
Bizarre Behavior	Cerebrovascular disease
	Metabolic disorders
	CHARACTER (PERSONALITY) DISORDERS
	Antisocial (sociopathic)
	Cyclothymic
	Explosive
	Hysterical
	Masochistic
	Obsessive-compulsive
For social relationships dysfunctional behavior patterns	Paranoid
	Passive-aggressive
	Schizoid
Permanent intellectual impairment	MENTAL RETARDATION

**No symptom or behavior is pathognomonic. This list merely serves as a guide to help organize the interviewer's initial approach to the patient.*

TABLE 2.
Descriptive Terms Applicable to the Mental Status Examination

CHARACTERISTICS	NORMAL	ABNORMAL
Appearance and Behavior		
1. Posture	Normal	Rigid, limp, ill-at-ease, bizarre
2. Gestures	Appropriate	Hyperactive, agitated, fidgeting, hand-writing, picking, touching, effeminate, violent, purposeless, tics, twitches, clumsy, bizarre
3. Grooming (hair, nails)	Neat, well-groomed	Slovenly, meticulously clean
4. Dress	Appropriate, casual but clean	Careless, slovenly, seductive, inappropriate, bizarre, dirty
5. Facial Expression	Appropriate	Dazed, perplexed, grimacing, poor eye contact, staring, lip-smacking
6. Speech		
A. Pace	Normal	Pressured, retarded, halting, blocking, stuttering, mute
B. Volume	Normal	Very loud, very soft, monotonous
C. Form	Logical, coherent	Illogical, rambling, tangential, circumstantial, incoherent
D. Clarity	Clear	Slurred, garbled
E. Content	Normal, unremarkable	Flight of (poverty of) ideas, loose associations, rhyming, punning, echolalia, preserveration, obscene, neologisms, word salad
Attitude and Sensorium		
1. Attention	Normal span, alert	Short span, hyper alert, drowsy, fluctuating, easily distracted
2. Mood	Cheerful, friendly, happy	Elated, euphoric, agitated, fearful, anxious, panicky, hostile, apathetic, sad
3. Affect	Appropriate	Inappropriate, intense, shallow, flat, blunted, labile, indifferent
Perception and Thought Content		
1. Hallucinations		
A. Auditory		Own voice, another's , many; talking to/about patient; flattering, accusatory, directive
B. Visual		Shadows, lights, halos, forms, figures
C. Tactile/Somatesthetic		
D. Gustatory		
E. Olfactory		
2. Delusions		Paranoid/persecutory; grandeur; reference; alien control; guilt; nihilism; thought insertion/broadcast/withdrawal
3. Illusions		Visual; auditory
4. Other		Derealization; austistic; thinking; phobias; ambivalence; obsessions; compulsions; ruminations; suicidal/ homicidal ideation or plans

Orientation	Oriented X 3	Disoriented to: time , place and person (others, familiar others, self)
Judgment	Intact	Impaired
Cognition		
1. Memory, short-term	Intact	Impaired
2. Immediate recall	Good	Poor (digit span of 5 or less)
3. Reversals	Good	Poor (digits backward of 4 or less)
4. Concentration	Good	Poor
5. Calculations	Good	Poor
Abstraction		
1. Similarities	Handled well	Poor, bizarre responses
2. Absurdities	Recognized	Not recognized, poorly handled
3. Proverb interpretation	Good, appropriate	Literal, semi concrete, concrete, bizarre
Insight	Good, excellent	Fair, poor, absent