13

Current Context

1. A 42-year-old man was brought to the emergency room of the general hospital by police officers who had found him lying on the street. The patient, unmarried, was identified as a known alcoholic who had been evicted from his room. The presumptive diagnosis after careful examination was alcoholic intoxication. After a few hours, he was alert and coherent, and his vital signs were stable. The emergency room physician felt that he could be discharged without any further treatment.

2. A 33-year-old married man carrying a paper bag containing a week-old sandwich came to see his doctor. He was obviously anxious and agitated. He told the doctor, "I am sure I am being poisoned by my wife. Please examine me and find out what poison she has been using. I brought this sandwich she made for me last week; I am sure that it is poisoned!" For several months the patient had suspected that his wife was having an affair and, recently, had been secretly following her to catch her with her lover. He was convinced that her lover was his boss. As evidence, he cited a recent raise in salary he had received. "Unless he has a guilty conscience, why would he give me a raise?" Although physical examination and laboratory tests showed no evidence of poisoning, the patient refused to believe that he was not being poisoned. In fact, he accused the doctor of colluding with his wife.

3. A 45-year-old woman was admitted to the psychiatric ward because of serious depressive symptoms, including suicidal ideation. On physical examination, her blood pressure was moderately elevated, and it was found that she had been taking a "blood pressure pill" for several weeks. The psychiatrist called her internist, who informed him that the blood pressure pill was reserpine, a medication known to cause depression. The medication was discontinued.

In assessing patients, it is essential to understand the immediate current situation of the patient and its relation to his help-seeking behavior. In vignette 1, the police sought help for the patient because he was lying on the street drunk. On arrival in the emergency room, he was found to need no further acute medical treatment. For another patient, this would have been enough reason for discharge from the hospital, but this patient could not be sent home—he had no home to go to. The immediate *social* situation, in this case, dictated that he be sent to a temporary shelter with referral to an alcohol rehabilitation program.

In vignette 2, the help-seeking behavior was due to a *psychological state* (paranoid psychosis). In this psychotic state, no amount of reassurance by the physician would change the conviction; rather, the physician himself became an object of suspicion. In vignette 3, the psychiatric problem (depression) was probably due to the effects of the antihypertensive drug reserpine on the central nervous system. Here, the patient's immediate *biological state* determined the nature of the illness that occasioned the help-seeking behavior. What is important to recognize here is that current social, psychological, and biological factors and states can and do participate and interact in influencing illness and help-seeking behavior.

CURRENT CONTEXT IN THE BIOLOGICAL DIMENSION

The patient's biological state, that is, the state of the component systems, organs, and tissues, is, of course, most often the underlying basis of his illness and help-seeking behavior. The diagnosis of the disease underlying the distress and symptoms often provides the physician with a logical approach to treatment of the *disease*. An understanding of the disease, combined with an understanding of the person and his environment, will lead to a rational management plan for the *patient*.

History, physical examination, and laboratory tests are the tools that provide information concerning the current biological state. In this dimension, one is concerned with bodily states—condition of tissues, organs, organ systems, and other components (e.g., Is the heart enlarged because of overwork? If so, what is causing the overwork? Hyperthyroidism? How is the thyroid gland behaving? What is the plasma thyroid hormone level?).

CURRENT CONTEXT IN THE PERSONAL DIMENSION

At the level of the whole patient as a unit system, the psychological state and current behavior should be considered. The patient's current behavior includes such observations as whether the patient is complaining of suffering such as pain or is experiencing anxiety related to symptoms such as grossly red (bloody?) urine. The concept of patient behavior (McWhinney, 1972) leading to doctor–patient contact is useful here (see Chapter 1). In addition to the current help-seeking behavior and chief complaints, other behaviors, such as manner of speech, tremor, perspiration, and gait, should be considered.

The patient's psychological state can be ascertained by a mental-status examination and by direct observation of his behavior. The significance of the patient's current psychological state is that it colors the history that can be obtained from the patient, and it influences the efficacy or inefficacy of specific approaches to the patient for optimal management. For example, in the case of vignette 2, the patient's paranoid psychosis resulted in a definite distortion in history. The physician's reassurances only resulted in the breakdown of the doctor–patient relationship. Another example is the depressed patient, whose history is often distorted systematically, that is, thoroughly permeated by a pessimistic, hopeless outlook and perspective as a result of the depressive syndrome. A confused patient will obviously give a confused history.

The mental status consists of the following components: (1) appearance, (2) levels of consciousness and orientation, (3) status of the communicative facilities (speech and movement), (4) cognitive processes (attention, concentration, comprehension, memory, perception, thinking logical thoughts, abstraction, judgment), (5) content of thought, and (6) affect (expression, experience, lability)—both subjective and objective.

Outline of the Mental-Status Examination

Appearance. Appearance is an excellent indicator of the sum total of a patient's mental status at a given point. Sloppy, disheveled appearance often signifies self-neglect or preoccupation and distraction. Flushed appearance and the smell of alcohol on the breath, combined with characteristic drunken behavior, point to the diagnosis of alcoholic intoxication. Pale, emaciated appearance accompanied by malodorous and sloppy dress may indicate the presence of depression or cachexia. Some patients with a lesion in certain areas of the nondominant hemisphere of the brain

may dress only one side of the body, completely oblivious to the presence of the other side. Such patients may pay attention only to one half of the visual field.

Notations on appearance should include observations on the general impression made by the patient (e.g., sloppy, neat, emaciated), including any unusual features (e.g., completely shaved scalp, unusual bodily habitus, dress).

Levels of Consciousness and Orientation. Awareness of self and environment constitutes *consciousness* in the mental-status examination. Consciousness may be subdivided into *content* of consciousness and *arousal.* The sum total of mental functions, including the ability to *remember* and to *think*, comprises the content of the consciousness, while the appearance of wakefulness and response to stimuli form the bases of inference concerning arousal. The content of consciousness is largely a function of the cerebral hemispheres, while the state of arousal is largely a function of the reticular activating system in the brain stem (Plum and Posner, 1972) (see Figure 7 [Chapter 4]).

Arousal: Levels of consciousness may be classified as follows:

- *Hyperalert* state—Increased state of arousal in which the patient is acutely aware of all sensory input. Anxiety and certain central nervous system stimulants can cause this state.
- *Alert* state—Normal degree of alertness.
- *Dullness* and *sleepiness*—May be due to fatigue and insomnia, as well as to sedating medications (as either primary effect or side effect). Metabolic derangements due to disease can also result in dullness and sleepiness, such as in uremia and hypercalcemia.
- *Clouding* of consciousness—A state of reduced wakefulness in which periods of excitability and irritability often alternate with periods of drowsiness. Illusions, especially visual, may occur, and the patient is often startled. Mild to moderate toxic states, withdrawal states, and metabolic derangements can cause this.
- *Confusional* states—In addition to clouding of consciousness, there is consistent misinterpretation of stimuli and shortened attention span. There is disorientation at least to time and often to place. Memory is often poor, and the patient appears perplexed. This is a more severe degree of clouding of consciousness.
- *Delirium*—When used to denote a particular and often fluctuating *level* of consciousness, delirium may include a florid state of agitation, disorientation, fear, misperception of sensory stimuli, and, often, visual hallucinations. The patients are often loud, talkative,

and suspicious and are sometimes completely out of contact with the environment. The degree of contact may vary. Delirium usually occurs in moderately severe toxic states and metabolic derangements of the central nervous system, including withdrawal from central nervous system depressants such as alcohol and barbiturates.

The term *delirium is sometimes* used to denote *all reversible organic brain syndromes* due to metabolic encephalopathy. When used in this sense, delirium is in contrast to dementia, which implies irreversible changes in the brain. Agitation and florid psychotic picture may be lacking in patients with delirium in this broader sense; that is, the patient with reversible confusion and disorientation may be placid and drowsy rather than agitated.

- *Stupor*—In this state, the patient is unresponsive to stimuli unless their application is very strong and repeated. Usually caused by diffuse cerebral dysfunction.
- *Coma*—Complete unresponsiveness to stimuli. Even strong and repeated stimuli cannot arouse the patient. This occurs in severe dysfunction of the brain, such as serious intoxication or severe head trauma.

Content of consciousness: Orientation refers to the person's consciousness of the orienting markers, such as correct awareness of *time, place,* and *person.* Impairment of orientation results in *confusion.* The orientation of a patient is determined by asking questions such as "What day of the week is it today?"; "Where are you right now?"; "What is your name?" In case of insufficiency in the cerebral cortical functions for any reason (most often due to metabolic derangement of the brain or neuronal destruction), orientation may be impaired to varying degrees. Impairment of orientation usually occurs in the order of time, place, and person. In hospitalized patients, disorientation as to date is not uncommon, perhaps due to the change in daily schedule following hospitalization, distractions by the medical procedures, and other disruptions in the patient's usual routine. In the absence of cerebral insufficiency, however, most patients are oriented to the month and year if not to the exact date. Orientation as to person, especially to the patient himself, usually is not impaired until the very latest stage of cerebral insufficiency, although the patient may often forget the names of others, especially those persons encountered recently. Disorientation to the self despite relatively normal mental-status examination in other areas strongly suggests a dissociative disorder rather than cerebral insufficiency (organic brain syndrome).

Status of Communication Facilities (Speech and Movement). In assessing the communicative facilities of a patient, one should consider the integrity of the apparatuses, the effect of learning and psychological state, and the content of the communication.

Integrity of apparatuses. The organs related to speech and movement should be assessed. Weakness of the tongue or facial muscles may produce dysarthria (difficulty in articulating words). Hemiplegia may cause the patient to gesticulate with only one hand. A painful lesion in the mouth may force the patient to be verbally noncommunicative. Deafness may result in nonresponse to a question.

Disorders of language *(aphasia)* caused by brain lesions may be present. Aphasia should be distinguished from dysarthria; the former is due to problems with language itself at the brain level, while the latter refers to difficulty in articulation. In aphasia, written language as well as verbal speech is affected. Aphasias may be roughly classified into *expressive* and *receptive* types. Expressive aphasia is related to lesions of the motor speech (Broca's) area in the dominant frontal lobe of the brain. The patient with expressive aphasia has major difficulties in translating thoughts to symbols; thus, what the patient wishes to express may come out in a distorted form or not at all. He is usually aware of this distortion or difficulty in his own speech and, for this reason, is usually reluctant to speak (or write). Receptive or sensory aphasia is due to lesions of the sensory speech (Wernicke's) area of the dominant temporal lobe. In this condition, the patient has difficulties in comprehending language, including his own speech. Thus, the patient's speech may be garbled, but he may *not* be aware of the problems with his speech. Unlike patients with expressive aphasia, those with the receptive form are usually fluent, although often incomprehensible to others. There are varying combinations and subtypes of aphasias; for more complete discussion, the reader is referred to textbooks of neurology.

Effect of learning and psychological state. Given intact apparatuses for communication, the form of communication often depends on the patient's psychological state and the effect of learning. The effect of learning determines the language in which the patient will express his feelings and thoughts as well as the fluency and facility of the language. For example, middle-class patients are more likely to use grammatically correct syntax and the elaborated code (see Chapter 3). Some patients may use dialects or culturally specific expressions. The current psychological state also determines speech and nonverbal communication. A euphoric patient is more likely to be effusive, verbose, and flamboyant; a depressed patient may be uncommunicative and withdrawn.

Content of communication. What the patient is communicating forms the content of communication. Understanding the content of the patient's communication is essential for the physician to be helpful to the patient. This is more than just accepting the patient's spoken language at face value; it involves an attempt to understand what the patient really *means* through his communication. For example, when a patient comes to the doctor and asks, "Is there a cure for Hodgkin's disease?" much more may be involved than simple intellectual curiosity.

The content of communication often reveals the patient's psychological state, for example, themes of hopelessness and death in depressed states, and bizarre contents in psychotic states. Extreme suspiciousness and ideas of persecution may indicate paranoid psychosis (as in vignette 2).

The content of communication includes the chief complaint, which is the perceived distress for which the patient is seeking help. For a further discussion of its significance, the reader is referred to Chapter 3. Pain is one of the most common chief complaints, and Chapter 9 should be referred to for a fuller discussion. The presence of delusions and paranoid thinking can also be determined by paying attention to the content of the communication (see below).

Cognitive Processes. These are the *processes* that determine the content of consciousness. The processes include attention, perception, memory, concentration, comprehension, abstraction, logical thinking, and judgment. Diminution in the function of any of these areas may indicate the presence of pathology in the cerebral cortex or limbic system. It should be noted, however, that what is important is a *decrease* in function *from the premorbid state* and not necessarily the absolute level of functioning, since the absolute levels of abstract thinking, comprehension, and other processes may be determined by background and by long-term variables such as constitutional endowment, educational level, and habitual functional level, as well as by illness. For example, cerebral pathology is more probably present in a college professor who cannot remember the names of the past five presidents than in a blue-collar worker with a tenth-grade education who evinces the same inability.

The cognitive processes can be tested both indirectly and directly. *Indirectly,* inferences can be made concerning the patient's memory, judgment, concentration, comprehension, and other abilities by asking the patient to describe the present illness and his personal history. Does the patient remember the dates (or years) of graduation from schools, marriage, and other significant events? Does the patient comprehend the nature of his illness and the proposed procedures? Does he remember

what has been told him by the physicians? Does he seem to be aware of the possible risks and complications?

When there is any question concerning the patient's ability to concentrate, comprehend, or think in a logical fashion, a direct and formal testing of the cognitive functions may be necessary.

Direct tests of cognitive processes. In introducing direct tests of cognitive processes, it may be helpful to explain that they evaluate memory, concentration, and so forth and so are useful in evaluating possible mental effects of medications, procedures, and the illness itself. For example, sedating medications may need to be reduced if the patient is found to be too drowsy or if concentration is diminished. This type of reassurance may put the patient at ease about possible errors he may make and gives the testing a medical context.

1. Orientation. The significance of this was discussed above. When doing a direct cognitive testing, it is useful to ask questions concerning orientation first. The questions may be "What day is today? What is the date (or day of the week)?" If the patient does not know, then "What month is it now?" "What year?" may follow. Mild disorientation as to time (e.g., not knowing the date) is common even among normal persons, but severe disorientation (e.g., not knowing the month and year) is indicative of cerebral dysfunction. "Where are you right now? The name of this place?" These test orientation as to place. If the patient does not know, then he may be asked "Are you in a hospital, a hotel, or a supermarket?" The patient may know that he is in the hospital (or a doctor's office), but may not know the name of the hospital or clinic, which indicates a milder degree of dysfunction than not knowing the nature of the place or confusing it with somewhere else, such as a hotel room. The next question (orientation as to self) might be "What is your name?" As discussed previously, dysfunction in orientation proceeds in an orderly manner from time to place to person. In fact, except in cases of very severe brain disease, orientation as to self is usually well preserved. Of course, a delusional patient may have a distorted orientation as to self, for example, "I am Napoleon Bonaparte."

2. Memory, attention, concentration, comprehension. Presidents: "Who is the President of the United States now?" If the patient answers correctly, continue asking "Yes—and before him?" until four or five names have been given correctly. This tests recent memory and information of the patient. Most patients with average high-school education can remember four or five recent presidents.

Calculations: Asking the patient to do simple calculations can test the patient's ability to attend to and comprehend the physician's instructions and to concentrate and utilize immediate memory. "How much is

15 plus 17?" "25 minus 7?" If the patient has difficulty, an easier calculation involving single digits should be tried. Unlike additions and subtractions, simple multiplications, such as 4 times 6, are easier tasks, since they involve primarily long-term memory (which is resistant to decay) and comprehension of the instructions. Thus, if the patient can do 4 times 6 but not 15 plus 17, then one might wonder whether the patient has difficulties with concentration and immediate or recent memory but not with remote memory and comprehension (indicating possible brain dysfunction). On the other hand, if the patient has difficulties with both, low educational level or mental retardation might be suspected.

If there is reason to suspect difficulties on the basis of simple calculations, serial 7s and digit span might be done. *Serial 7s* are done by asking the patient to subtract 7 from 100 and to keep subtracting 7s from the results. This tests sustained attention and concentration as well as short-term memory. If serial 7s are too difficult for the patient, serial 5s or 2s may be tried. *Digit span* is tested by asking the patient to repeat a number of digits, such as 5—8—3—9—6—2. Digit span backward is tested by asking the patient to repeat in reverse order the numbers that you give him. For example, "If I say 1—2—3, please say '3—2—1.'" This tests primarily short-term memory and concentration. Most patients without brain dysfunction can do at least six digits forward and four digits backward.

Memory, especially recent memory, is very sensitive to dysfunction of the brain. There is some evidence that the limbic system structures, especially the hippocampus, are involved in the coding of recent memory into the long-term memory mechanisms (see Figures 4 and 5 [Chapter 4]). Any metabolic derangement and structural damage to the limbic system (which is especially sensitive to anoxia) and the cerebral hemispheres can result in problems with memory.

When memory dysfunction is suspected, the physician can test the registration, retention, and recall of memory by the following steps: First, ask the patient if he remembers your name. If he does not, give him your name and ask him to repeat it (immediate memory: registration and immediate recall). Then, tell him that you would like him to remember the names of four objects, such as a pen, a telephone, a flashlight, and a book. Tell him to repeat the names of the four objects immediately. In about five minutes or so, ask the patient if he remembers your name; also, the names of the four objects (recent memory: retention and recall). The patient may be able to remember only one or two objects (diminished recent memory). If the patient cannot recall the names at all, ask the patient "Please say 'yes' if any of the objects I name now is one of the objects I named before: pencil, pen, television, telephone,

book," etc. (If the patient can identify the articles but could not remember them, it may indicate the presence of retention but difficulty with recall.)

3. Abstraction. Similarities: This tests the ability of the patient to see similarities among objects and to categorize them on the basis of the similarities. For example, "What is the similarity between a cat and a dog?" The patient may answer "They are both animals" (a good abstraction) or "They both have legs" (a concrete response). In case of the latter, you might ask "Then how about a dog, a cat, and a snake?" At this point, the patient may be able to abstract and say "They are all animals." Proverbs: For example, "What does the old saying, 'People who live in glass houses shouldn't throw stones' mean?" "Don't cry over spilt milk," etc.

In testing for abstraction, one should recognize that these are most subject to influences of educational level, cultural background, and language. For example, those from non-English-speaking cultures may have great difficulty in abstracting English-language proverbs.

A concrete response in tests for abstraction may indicate possible brain dysfunction, low educational level, low intelligence, or formal thought disorder, as in schizophrenia. An *idiosyncratic* or *bizarre* response may indicate an unusual way of thinking, as in psychosis. For example, "What is the similarity between a cat and a dog?" "They are both my enemies." "What does the proverb, 'People who live in glass houses shouldn't throw stones' mean?" "That means that even if you have enough money to buy a glass house, you should not throw away money. Stones are gems, you know, which cost a lot of money."

4. Logical thinking and judgment. Patients with brain dysfunction may show varying degrees of difficulty with judgment. Judgment means the ability to act appropriately in social and emergency situations. Many questions concerning judgment also involve the ability to think logically. For example, "If you were in a crowded theater and happened to discover fire and smoke coming from the ceiling, what should you do?" A good answer would be "I would tell the usher or manager." If the patient replies "I would yell 'Fire'," the physician might ask "If you yelled 'Fire,' what would happen?" The patient with intact logical thinking may then say "I guess that would cause panic . . . perhaps I should not yell 'Fire'." Other judgment questions include "What would you do if you found an envelope with an address and a stamp on it on the street?"

Patients with personality disorders without organic brain dysfunction may give idiosyncratic or inappropriate responses to judgment questions. For example, an impulsive patient may say "I would try to put out the fire by throwing my can of soda on it."

5. Perception. The patient's perception can be tested by first observing whether the patient seems to be aware of the tester's presence and whether the patient seems to be responding to visual or auditory hallucinations (e.g., carrying on a conversation or touching). Then, the patient can be asked questions such as, "Have you ever had any experiences of hearing things or seeing things that others couldn't see or hear?" "Any experiences of things changing shape or becoming distorted?"

6. Delusions and paranoid thinking. A delusion is an idea firmly held by a patient that is not corroborated by reality. Delusions may be grandiose ("I am God"), persecutory ("Everybody is out to get me"), or depressive ("Worms are eating my brain out"). Some delusions involve diseases, such as, "I know I have cancer, no matter what the tests show." The term "paranoid" is often used to describe patients who have persecutory ideas or delusions.

The presence of delusions is usually manifested by the content of the patient's communications. Delusion formation is a process by which perceptions are put into some kind of perspective. Thus, strange bodily sensations, due to whatever cause, may be attributed to "poisoning" and continuing presence of anxiety to "people spying on me." Obviously, when cognitive processes are not functioning optimally, and when the anxiety level is high (such as in a hospitalized patient with preexisting cognitive difficulties due to poor blood supply to the brain), the risk of delusion formation is greater; it is easier to misperceive stimuli or attribute confusing stimuli to a cause unrelated to reality (e.g., "The doctors are trying to kill me so that they can give my kidneys to someone else").

In addition to indicating the possible presence of cognitive difficulties, delusions give clues concerning the emotional state of the patient. For example, persecutory delusions are associated with anxiety, grandiose delusions with euphoria, and depressive delusions with a depressive syndrome.

Affect and Mood. Affect refers to feeling and is synonymous with emotion, although the latter is sometimes used to denote the physiological aspects of affect (e.g., emotional response [see Chapters 4 and 6]). Mood refers to prevailing and relatively enduring emotional tone.

Affect can be documented by observation and direct questioning. By observation, one can see whether the patient's affect is *appropriate* or *inappropriate* relative to the topic of conversation (does the patient smile while talking of sad events?) and whether it is *stable* or *labile*. Labile affect, as manifested, for example, by laughing one minute and crying the next, may be indicative of organic brain dysfunction, in which case there will be additional signs of cognitive difficulties. *Flat affect*

means the absence of any display of affect and is often associated with extreme use of isolation as a defense mechanism (Chapter 5) or with schizophrenia.

Direct questions about affect might be "How do you feel right now?" and "Do you feel anxious?" Physiological signs such as sweating, rapid heart rate, and facial expressions also reveal affective states.

Mood can be ascertained by asking the patient how he has been feeling recently, for the past week or two. Family, friends, and relatives of the patient may also provide useful information concerning the patient's mood. Depression or chronic feelings of anger may contribute to illness and help-seeking behavior.

CURRENT CONTEXT IN THE ENVIRONMENTAL DIMENSION

It is very useful to pay attention to the patient's environment as he comes to the doctor for help. This includes observing who has accompanied the patient and at whose prodding or suggestion the patient decided to seek help, as well as who is available to help the patient should the need arise. For example, who might be able to sign a consent form for procedures in case the patient himself becomes incapable of doing so?

The patient's occupation and work environment are an important area of consideration in terms of possible expense of hospitalization and loss of wages due to illness, as well as in terms of possible toxins associated with certain types of work environments (e.g., heavy-metal poisoning in chemical factories).

The effect of the patient's assumption of the sick role on his family and work should also be considered. The physician may have to help the patient decide whether or not he should delegate his work to someone else during his hospitalization, on the basis of the expected incapacity, the prognosis, and the necessity of the patient's personal involvement in work.

INTERACTION AMONG THE CURRENT-CONTEXT DIMENSIONS

The psychological state of the patient (central nervous system), the biological state (state of the organs and tissues), and environmental factors

are closely correlated and influence each other. For example, in anxiety states, there is often an elevation of blood pressure, pulse rate, and generalized sympathetic nervous system discharge, as well as increases in corticosteroid hormone levels. The anxiety related to hospitalization alone may result in increases in plasma levels of adrenocortical and, possibly, thyroid hormones. On the other hand, organ diseases and endogenous and exogenous toxins can influence the patients' psychological state, including depression, anxiety, personality change, and even psychosis (see Table 21).

An often frightening state in which a patient may present himself to the physician is the state of catatonia—the patient is mute, unresponsive, and rigid. When the physician changes the patient's posture by, for example, lifting up his arm, the arm remains in the new position ("waxy flexibility"). The vital signs are usually normal in this state. This *catatonic syndrome* has been regarded as typical of a form of schizophrenia. Many other conditions and diseases, however, can give rise to many features of the catatonic syndrome (as in Table 6 [Chapter 7]). The presence of one or more features of the syndrome should not lead the physician to make the diagnosis of schizophrenia and forego further workup to rule out underlying medical or neurological diseases.

As in the case of depression, the presence of any psychiatric syndrome should alert the physician to the possibility that it might be *secondary* to a disease in the biological dimension or to an environmental factor.

SUMMARY

The current context of help-seeking behavior can be assessed at the environmental, personal, and biological levels. The *environmental*-level information is important in understanding the patient's interpersonal resources, which in turn is helpful in planning rehabilitation and convalescence, among other things, and also in understanding possible contributory factors to illness, such as noxious environmental factors.

At the *personal* level, the current psychological state can be assessed by the mental-status examination. This assessment is important because it provides the physician with information on the immediate pressing needs and concerns of the patient as well as the immediate limitations (such as psychosis or confusion).

The current *biological*-level information is the basis for the diagnosis of disease, and the disease itself is often the cause of the patient's distress.

Table 21. Partial List of Medical Diseases Often Associated with
Psychiatric Syndromes

Anxiety
  Hyperthyroidism
  Pheochromocytoma
  Carcinoid syndrome
  Menopausal syndrome, premenstrual
    tension
  Hyperinsulinism (including insulin
    overdose)
  Withdrawal from a CNS-depressant
    drug (alcohol, narcotics, sedatives)
Depression
  Carcinoma (especially tail of pancreas,
    but any occult cancer can cause
    depression)
  Hypothyroidism
  Hyperthyroidism
  Diabetes mellitus
  Cushing's syndrome
  Addison's disease
  Administration of ACTH
  Antihypertensive therapy (especially
    reserpine, but also with methyldopa
    and propranolol)
  Any electrolyte imbalance
  Uremia
Euphoria/mania
  Hyperthyroidism
  Steroid psychosis
  Multiple sclerosis (depression is also
    common in this syndrome)
  Ingestion of a CNS stimulant (e.g.,
    amphetamines)
Personality change
  Frontal lobe lesion of the brain due to
    any cause, including metastases,
    diffuse encephalopathies, such as
    Alzheimer's disease, and focal lesions
    in lupus erythematosus, and genetic
    disorders such as Wilson's disease
    and Huntington's disease
Paranoid psychosis
  Steroid psychosis
  Hyper- and hypothyroidism
  Hypoglycemia
  Amphetamine psychosis
  Withdrawal from a CNS-depressant
    drug

Organic brain syndromes and toxic
  psychosis
Electrolyte imbalance
  Acid-base imbalance
  Sodium imbalance (especially
    hyponatremia)
  Potassium imbalance (especially
    hypokalemia)
  Magnesium imbalance (especially
    hypomagnesemia)
  Calcium imbalance
Drugs (withdrawal or intoxication)
  Alcohol withdrawal
  Barbiturate withdrawal
  Intoxication by any licit or illicit drug
Overmedication
  Tricyclic antidepressants
  Phenothiazines
  Anticholinergics
  Sedatives
  Analgesics (opiates, pentazocine)
  Digitalis
Undermedication
  Analgesics
Environmental toxins
  Heavy metals (e.g., lead, arsenic)
  Organic phosphate compounds
Ventilation–perfusion problems
  Hypoxia (e.g., anemia, chronic
    obstructive lung disease)
  Congestive heart failure
  Hypovolemia (dehydration,
    hemorrhage, shock)
Neurological diseases
  Cerebrovascular accidents (CVA)
  Tumor
  Infection
  Trauma
  Epilepsy
  Degenerative diseases (e.g.,
    Alzheimer's disease)
Vascular diseases
  Arteriosclerosis
  Inflammatory disease of blood vessels
    (e.g., systemic lupus
    erythematosus)

(continued)

Table 21. *(Continued)*

Endocrine diseases
  Hyper- or hypothyroidism
  Hyper- or hypoparathyroidism
  Addison's disease
  Cushing's syndrome
Deficiency states
  General malnutrition
  Pernicious anemia (B_{12} deficiency)
  Thiamine
  Pyridoxine
  Pellagra (nicotinic acid deficiency)
Environmental factors
  Room location (noisy or too secluded)

  Lack of stimulation
  Poor lighting
Other
  Hypoglycemia
  Hepatic encephalopathy (ammonia
    intoxication)
  Uremia
  Fever
  Remote effects of malignancy
  Postanesthesia
  Porphyria
  Blood dyscrasias

There are many biological disease processes and organ states that are associated with psychiatric syndromes. In many of these patients, the psychiatric syndrome (e.g., depression) may be the presenting complaint. Treatment of the underlying medical disease is essential for relief from the psychiatric syndrome in these patients.

IMPLICATIONS

For the Patient

The current-context factors such as chief complaint, physical state, and interpersonal strain have the greatest urgency and immediacy for the patient, and help-seeking behavior is determined by, and directed toward, these factors. The current-context variables may also limit the patient's ability to communicate (e.g., stuporous or psychotic state) or call for immediate intervention (e.g., state of hypotensive shock).

For the Physician

Understanding the patient's immediate needs, concerns, and limitations allows the physician to formulate immediate management plans. It is essential to understand the patient's immediate surroundings, including who accompanied the patient to the physician, since the family or friends can be invaluable as information sources and in health-care planning. The physician should be aware that a number of organ states and *diseases*, such as occult carcinomas, can present with *psychiatric syndromes*. Thus,

the presence of a psychological abnormality such as depression or psychosis should not be automatically taken as an indication that the patient is a "mental" patient whose problems are caused by factors at the environmental or personal level only. Even those psychiatric patients who have long-standing psychiatric illness may have, in addition, a medical disease.

For the Community and the Health-Care System

Medical education should place more emphasis on understanding patients in all three dimensions: biological, personal, and environmental. Medical records should have provisions for documenting the factors at all three levels. Hospitals should pay attention to the immediate physical and social environments of patients and provide them with comfortable surroundings as well as a place for the family and friends accompanying patients. Hospital staff should be educated concerning the management of patients who are in altered states of consciousness, including stupor and psychosis. Since psychosis occurs in medical conditions requiring medical treatment, medical personnel should be trained to deal with such patients.

REFERENCES

McWhinney JR: Beyond diagnosis: An approach to the integration of behavioral science and clinical medicine. *N Engl J Med* 287:384–387, 1972.
Plum F, Posner JB: *The Diagnosis of Stupor and Coma*, ed 3. Philadelphia, FA David, 1980.

RECOMMENDED READING

Alpers BH, Mancall EL: *Essentials of Neurological Examination*. Philadelphia, FA David, 1971. A concise and lucid manual for neurological examination that will complement the mental-status examination discussed in this chapter.
Plum F, Posner JB: *The Diagnosis of Stupor and Coma*, ed 3. Philadelphia, FA David, 1980. This is an authoritative book on the evaluation of patients showing altered states of consciousness. A very good reference book.
Wilson JD, Braunwald E, Isselbacher KJ, et al.: *Harrison's Principles of Internal Medicine*, ed 12. New York, McGraw Hill, 1991, Introduction to Clinical Medicine, pp 1–19. A good and concise introduction concerning the practice of medicine, obtaining history, and the diagnostic process.