THE MENTAL STATUS EXAMINATION

Developed at the University of Rochester, School of Medicine and Dentistry

Definition

The complete examination and study of any patient must include the examination of the patient's mental status. The Mental Status Examination (MSE) is designed to test the functions of the mental apparatus. It yields an estimate of the gross effectiveness and integrity, quantitatively and qualitatively, of a broad spectrum of functions at the psychological level of organization. When administered properly, the MSE elicits evidence of dysfunction or malfunction of the mental apparatus. It aids in the detection and identification of psychopathology and may point to etiological factors.

While the MSE is performed on every patient, the psychiatric examination, especially of psychotic patients and of children, must include data from other sources also. Information directly elicited from the patient is supplemented by data obtained from relatives, neighbors, ministers, or social workers. The patient is part of a social system each member of which, as a result of his idiosyncratic perception of the system, affects the behavior of the patient and is in turn, affected by the patient's behavior. The comprehension of the patient's problems, therefore, requires the utilization of as many sources of information in the patient's immediate environment as can practically be tapped. Whenever possible such ancillary informants should be called upon at the time the patient is admitted. The yield from such interviews is often amazingly rich. Errors, discrepancies, and omissions in the patient's own history are thus corrected and an early, clear definition of the patient's problems is facilitated.

A single interview with the same or with different members of the family often is not sufficient. Any one member of the family or social unit of which the patient is a part may need to be seen a number of times before we are able to understand the structure of the family, the life-style, the life experiences of the patient and the place of these factors in the pathogenesis of the patient's presenting illness. The psychotic patient's own productions may seem to be unintelligible at first. They should nevertheless be recorded with as much precision as possible. When combined with other information and increasing quantities of direct observations, even the most psychotic productions often begin to make sense.

Mental illness frequently arouses resentment, fear, guilt, shame, and anxiety in patients and relatives. These may manifest themselves by attitudes of defensiveness, anger, or by bewilderment. The doctor should be aware of this and attempt to make each interview an exercise in psychotherapy. In addition, to obtaining much information from family members, the interviews should orient the family members, allay some of their anxiety and give them a better understanding of the causes of emotional illness. The members of the family should be encouraged through their interest in the patient to share as much information as possible with the student or house officer. They can also be told in general terms about some of the problems the patient is facing. With better understanding on the part of the relatives, they will be able to be more cooperative in following through recommendations for further care or hospitalization, changes in the home, and attitudes toward the patient. Discussions with the relatives should avoid the extremes of alarmism or undue optimism. In speaking to them, language should be used which is understandable in terms of their own culture pattern. Special care should be exercised to protect the patient's interests and not give information to the relatives that could be used against him or that could be misinterpreted by the family. After the initial interview, the family should be seen whenever

necessary or at their request. They should be kept informed of the patient's progress. Any communication with the family members or with others concerned with the patient's welfare should be undertaken with the full knowledge of the patient. There must be no question in the patient's mind about the confidentiality of what transpires between him and his physician. In instances in which further information is needed from social, health, and judicial agencies in the community, medical students and house officers will not make direct inquiries to these agencies but will refer such matters to the psychiatric social worker. Inquiries, in any detail about the patient from individuals, or from other third parties (agencies, etc.) are responded to only with written permission of the patient. The only exceptions to this rule are inquiries from other physicians or from other hospitals.

Evaluating the material obtained from the patient and from the informants and piecing it together to obtain a comprehensive view of all the facts requires judgment, objectivity, and knowledge not only of a clinical psychiatry but in a broader sense, of persons living in a social group. It is sometimes difficult to determine the validity of the patient's statements. In addition to possible sources of confirmatory or contradictory data from the informants, the MSE will help the examiner to detect slight or marked abnormalities in the thought processes and actual experiences of the patient.

It is particularly important to remember that patients should not be accosted directly with information obtained from second-hand sources. The MSE is not a legal inquiry but an outline to help the examiner learn the nature of the patient's problems and to note the pertinent aspects of the patient's behavior.

Indications for the Mental Status Examination

A record of the patient's mental status is part of every completely recorded history of illness. In the form here suggested, it follows the record of the Physical Examination. How much of the complete MSE is administered and at what point or points in the total relationship with the patient this is done, depends on each individual case. In many instances, as will be elaborated below, much necessary minimum information can be elicited in the course of taking the patient's history and during the physical examination. This may be sufficient to give adequate data for an estimate of the status of the patient's mental functioning and may provide adequate material for a useful record. In instances where no further formal examination may be necessary a number of areas of mental functioning will have been found to be grossly intact in the course of history-taking and other initial contacts with the patient. These might include the formal headings of:

Appearance and Behavior
Speech
Mood
Thought Content
Perception
Orientation as to time space and person

A patient may be too ill to be subjected to a prolonged MSE. Here again, many pertinent data can be obtained during the necessary initial contact with the patient and more formal examination, if deemed indicated, may be postponed.

The fact of the patient's refusal to cooperate in some of the more specific areas of the MSE is not in itself a contraindication to pursuing the examination further. Such refusal needs to be understood on its own terms and may be an important datum towards establishing, for instance, the

presence of a sensorial defect. The patient in this case may be reacting to his anxiety about the presence of such a defeat by refusal to participate in its demonstration. The skillful examiner then seeks other avenues through his developing relationship to the patient to obtain the needed confirmation.

When, early in the course of examination of the patient, defects are detected in some of the areas mentioned above (or in others elaborated below), more formal and detailed examination is in order. This is also almost always the case in any patient whose complaints when first seen are primarily in the area of mental functioning.

A written record of the MSE should always be made regardless of factors limiting the extent of the examination itself. No matter how scattered the sources from which the information has been gathered in the course of the total contact with the patient, the accumulated data should be recorded in an organized fashion. One possible form of organizing them is suggested below.

The Technique of Performing the Mental Status Examination

Much of the success and validity of this examination will depend on the way the examiner approaches the patient. All aspects of the patient's behavior are data, including his reaction to the examination itself. Much depends on the examiner's attitude towards this part of the total examination of the patient. The patient senses quickly if the examiner considers his task in this area a routine, which has to be performed for the sake of "completeness" of the record. Perfunctoriness on the part of the examiner, lack of understanding of the purpose of the examination, defensiveness about administering various parts of the examination--all these are reflected in the test results and their validity. As many as possible of the items enumerated below should be obtained during the course of general history taking. Those parts of the MSE, which require specific questioning, should be done with thorough knowledge of their purpose. This should be done in the same matter-of-fact manner as one examines those areas of the body which often are invested with special significance by the patient, but the thorough examination of which are usually accepted by the patient as a matter of necessity. By the time MSE is begun, after initial history-taking, certain background facts about the patient will be known which will, to some extent, determine the choice of some of the specific items in the examination (e.g., in the area of "general information"). These background facts include education, occupation, socioeconomic status, age, sex and marital status. Conditions, at the time of examination, also have a great potential influence on the results and their validity. These conditions should be established and later recorded (e.g., patient's experiences with regard to drugs, alcohol, recent sleep disturbances, acuteness of present illness, time of day of the examination , and the physical surroundings in which it was given--on the hospital division, in the physician's office, etc.).

The Content of the Mental Status Examination

I. Observations of Examiner (not in response to questions):

A. Initial Appearance and Behavior

Dress - neat, untidy, eccentric, etc.
Posture - relaxed, rigid, tense, erect, recumbent, etc.
Facial Expression - mobil, fixed, bland, angry, etc.
Motor Activity - immobile, restless, dystonic, graceful, clumsy, etc.
Physical Characteristics - body configuration

Mood - (objective observation) calm, elated, anxious, irritable, etc. Is mood divergent from or contradictory to content of thought? Is it changeable during interview? If so, with what topics? At various times of the day?

B. Speech

Quality of speech - tone, inflection, loudness, pronunciation (clear or slurred, defects, lisp), continuity (slow, rapid, halting), blocking, stuttering, etc., free verbalization, monosyllabic answers, pressure of speech, etc.

Organization of speech - coherent, logical, relevant, circumstantial, disorganized, flight of ideas, work salad, rhyming, punning, etc.

II. Patient's own subjective evaluation of his emotional reaction and mood (in response to questions by examiner, or in spontaneously offered communication). In the following, a number of questions are suggested to elicit the information desired under this heading. These questions are best asked in relation to certain topics as they arise in the course of interviewing the patient. Do not suggest feelings to patients but ask for them in a open-ended way.

A. How do you (did you) feel?....when such and such happens (happened). Also used as a general question.

B. Mood fluctuation - diurnal, longer periods, during interview - What part of the day is most difficult? Most pleasant? How is this? Do you know why? Now, at the end of the interview, do you feel the same as you did in the beginning? Did you notice any swings in mood at some time during the interview?

C. It is often important in the early contact with a patient to establish the presence of <u>suicidal tendencies</u>. Often the patient will offer either a direct or indirect clue in this area, which can be followed up with more questions. When you feel this way, does it seem at times that you just can't go on? Have you thought when you are in such a mood that you might hurt yourself? Do away with yourself?

D. Feelings of unreality often come out spontaneously in the course of interviewing when the patient reports that he seems to feel strange, detached, in a fog, in a dream, unreal, without life, etc. At other times they must be elicited through judicious questioning. Again, it is better that this be done in context of the rest of the history than in a separate questioning period.

III. Content of Thought

It is necessary to repeat that this is an artificial division, made for the purpose of recording the results of the MSE, but that much of the material in any of these numbered categories will have emerged during the history-taking interview or may come out while the interviewer is questioning the patient on matters having to do with the previous or subsequent categories--or any other enumerated here. The purpose of the order suggested here is to organize the total material relevant to mental status which will have been obtained in various places at various times and even from various persons other than the patient.

The above is true particularly in this category. The patient's content of thought may be his chief complaint: "I have a recurring thought that I will hurt my children." The patient's

content of thought may be the chief complaint and the interviewer may not find it out until he has known the patient for some time--for example: a frightening hallucination, an obscene obsessive thought, an overwhelming preoccupation with some fearful or shameful thought, feeling, or act of behavior.

In eliciting details about the content of thought or searching for specific information (presence or absence of hallucinations) special skill is required and also a reasonable control of the examiner's own anxiety about the material which may be in the offering. To begin with, the open-ended question is, as usual, the best: "What do you think about when you are upset like this." (or "depressed like this," etc.) "Sometimes people who are upset (or depressed, etc.) have other upsetting (painful, frightening, unusual) thoughts." "Sometimes they hear things or see things that are upsetting." "Sometimes they have recurring thoughts that don't want to go away.", etc. Directness, when timed properly, when supported by a good relationship with the patient, or when coupled with the kind of reassurance indicated above, need not be traumatic. At times the patient may sense correctly, or assume erroneously, that the doctor is beating around the bush, is being indirect because of his own anxiety, or his disapproval or fear of the patient's symptom, thought, or hallucination.

At the end of the completed MSE, the examiner should have obtained information or have the knowledge of the presence or absence of the following items, listed usually under the heading of content of thought.

A. Symptomatology Involving Thoughts:

1. Compulsions: repetitive acts which the patient feels driven to do (hand-washing, counting, etc.)
2. Obsessions: repetitive thoughts which enter the patient's mind unbidden and which he seems unable to control (thoughts of aggression, sexual thoughts, etc.)
3. Ruminations: repetitive or continuous speculation. Often circular, about abstract matters, interfering with all other thought processes.
4. Doubting and Indecision: excessively time-consuming uncertainties about which dress to wear, which tie to wear, what to eat, what to do, what to think, etc.
5. Phobic Thoughts: irrational fears - of heights, crowds, closed spaces, certain animals, etc.
6. Free-floating Anxiety: sense of dread and/or impending doom.
7. Feelings of Unreality: things seem in a fog, dim, distant, as if in a dream, unreal, remote. The solid objects in the environment somehow look different; shapes and colors are flat or changed, etc.
8. Depersonalization: a loss of sense of identity; the person feels different, changed, empty.
9. Feelings of Persecution: this heading includes the patient’s perception of relationships with people - does he feel that everyone is against him; that he is friendless, disliked, scorned, persecuted and plotted against? Are there suspicions of people's motives; is he feeling wronged, annoyed, poisoned? How does he account for these events?
10. Feelings of Influence: are others working on him without his control? Is there a feeling of being controlled, influenced or manipulated, etc?
11. Feelings of Reference: sensations and feelings that events in the outside world are in some way all related to patient. This may include newspapers, radio and television programs beamed at him, commenting about him. Car horns may toot for him and street lights shine in a certain way to deliver certain messages.

B. Somatic Preoccupations (These include ideas about the patient's body. The patient may believe that his body has changed or is changing; that his senses, his eliminative functions, his sexual functions and digestion, operate in a different, strange, extreme way; that the size of an organ or organs has changed; that internal changes are going on of a strange, different, or bizarre nature.)

C. Symptomatology Affecting the Perceptions

1. Illusions: (particularly important in delirious patients). Does the patient misinterpret sensory data, shadows, noises, odors, bodily sensations? Are these misinterpretations more severe and/or upsetting to patients at certain times of the day, under certain conditions, e.g., in the dark, or in shadowed or subdued lighting.

2. Hallucinations: These are subjective sensory perceptions, which may occur in any of the sensory modalities. Often the patient will volunteer information regarding the presence of distressing voices, which he hears; at other times their presence is inferred from the patient's behavior. Sometimes there is no outward indication of the presence of hallucinations but the patient may respond affirmatively and in some detail to specific questions regarding the presence of noises, odors, voices, visions, pictures, etc.

   Auditory hallucinations are most frequently experienced in the form of voices. The content may be fragmentary or structured. The voices may be single or multiple and may be threatening, accusatory, persecutory, obscene, seductive, terrifying, or reassuring. Men's, women's, children's voices may be identified.

   Visual hallucinations are much less common. They, too, may appear in a great variety of different forms, from fleeting images of varying emotional impact, to well-defined, vivid pictures or scenes. (For example, monkeys with red hats and red coats in a patient with delirium tremens, are so real to the patient that he could chase them, describe their antics, etc.)

   Gustatory hallucinations include odd or unpleasant tastes. (rare)

   Olfactory hallucinations include odd or unpleasant smells. (rare)

   Tactile hallucinations include sensations of being touched, fornication, insects on and under the skin, painful sensations, etc.

Of the above items, III A. (1-6) are more frequently associated with neurotic distress; the rest more likely with psychotic conditions.

In any of the above it is important to establish exactly the circumstances surrounding the occurrence of these experiences (time, place, content, frequency, and constancy of occurrence. When, how and how often, what time of day, what relation to sleep or waking--all are pertinent questions.)

D. Other Unclassified Types of Experiences

1. Dreams: Does the patient dream? How often; how vividly? Are there repetitive

dreams? Are there nightmares? What is the content?

2. Hypnagogic and Hypnopompic Phenomena: These are dreamlike experiences often having a quality akin to hallucinations, occurring in the twilight states, between falling asleep and sleep, and between sleep and waking up. They may have special, repetitive content and specific affective components.
3. Deja vu and similar sensations: This is a group of phenomena in which the patient may have the sensation of having been in a similar or same situation as the one in which he finds himself at the time. It may be an acute sensation of "having heard this same thing once before: (deja entendu). This feeling may involve any of the sensory modalities, and may be very strong and vivid, with uncanny sense of great familiarity with a new situation or sensation.

IV. Examination of the Cognitive Functions

This part of the MSE is somewhat different from the rest in that it consists of more formal test questions. The methods and materials of this part of the examination are borrowed from more structured psychological tests. If these abbreviated procedures are not sufficient, or if they lead to data that are equivocal, a more detailed study with more elaborate and sensitive psychological tests is indicated.

Not every patient requires even the amount of cognitive testing here outlined. The most important problems in which these tests are indicated is in the distinction between organic brain disease and functional psychogenic illnesses; in the diagnosis of epilepsy, fugue states, delirium and dementia, and in the estimation of intelligence in patients in whom there is a question of mental deficiency.

Here more than in any of the other sections of the MSE it is important to be aware of the patient's reactions to being given such test questions, which may often be interpreted as threatening, humiliating, annoying, or insulting. Again, certain sections of the following (orientation, memory) may be elicited casually, informally, during other interviews with the patient. Those questions, which involve actual testing (serial sevens), should be explained and introduced to the patient so that he can understand their purpose. To explain these tests as a necessary baseline--these and other preliminary statements may help considerably in obtaining the patient's full cooperation. It is important also to remember that it is necessary to proceed <u>slowly</u> with questions with patients in whom a deficit in the cognitive functions is suspected. The test questions used should take into consideration the patient's age, cultural background, and educational level. Easy questions should be asked first, followed by more difficult ones until the patient is unable to respond correctly. At this point it is often reassuring to the patient to return again to a question, which he is able to handle correctly.

As a rule, a patient should <u>not</u> be given the correct answers to questions on which he has failed. Giving such answers would, obviously influence the patient's performance on any subsequent examination, should one be necessary.

For testing the cognitive function, the following subsections are suggested:

Orientation } Level of
Attention-Concentration } Awareness
Memory (recent, past)
Information and Vocabulary

Abstract Reasoning
Judgment
Perception and Coordination, Psychomotor Speed

A. Orientation (This may have been established in the course of history-taking). Can the patient place himself in time? In space? As to his identity, who is he? Where is he? When? Does he recognize the function and identity of those around him (physicians, nurses, students)? When you ask a patient for the date, it is useful to remember to ask for the complete date--a patient may appear to be oriented fairly well to the approximate day and exact month, but when asked about the year, may prove to be mistaken.

B. Attention and Concentration

1. The Digit Span test consists of asking a patient to repeat a series of digits read to him by the examiner. Patients should first be tested on retention of digits forward. When the upper range of this is determined, retention for digits in reverse order should then be tested separately. For both parts, digits should be given at the rate of one per second and should not be grouped. The pitch of the examiner's voice should be allowed to drop with the last digit of each series. If the patient fails on first trial at any digit series, a second trial of that length series should then be given. Stop after two failures at any given series length. The following are suggested as digit series to be used:

Digits Forward

3,8,6	5,1,7,4,2,3,8
6,1,2	9,8,5,2,1,6,3
3,4,1,7	1,6,4,5,9,7,6,3
6,1,5,8	2,9,7,6,3,1,5,4
8,4,2,3,9	5,3,8,7,1,2,4,6,9
5,2,1,8,6	4,2,6,9,1,7,8,3,5
3,8,9,1,7,4	
7,6,9,4,8,3	

Digits Backward

2,5	1,6,5,2,9,8
6,3	3,6,7,1,9,4
5,7,4	8,5,9,2,3,4,2
2,5,9	4,5,7,9,2,8,1
7,2,9,6	6,9,1,6,3,2,5,8
8,4,1,3	3,1,7,9,5,4,8,2
4,1,6,2,7	
9,7,8,5,2	

The average expected level is from 5 to 8 digits correct forward and from 4 to 6 correct backward, less than 5 forward or less that 3 backward should be considered below

average performance. A slight decrease in score after age 65 is considered normal. At any age a discrepancy between digit span forward and backward of more than 3 points is unusual.

2. Serial 7's or Serial 3's

This is a test of concentration in which the patient is asked to subtract sevens (or threes) from 100 in serial fashion audibly and as fast as he can. Attention should be paid to the manner in which the test is performed. It is not only a test of arithmetical ability. Serial subtraction, which taxes continuously and repeatedly the ability to attend and to concentrate, is one of the most valuable tests in detecting slight changes in attention produced by delirium. Long before arithmetical error may be manifested, the patient may betray his decreasing ability to perform the task by heightened effort, preservation, increase in total time of the test, frequent hesitation or questioning, requesting a new start, or becoming irritable, depreciating the test and the examiner. Average time for serial 7 subtractions is up to ninety seconds. Four or more errors is considered marginal, and seven or more errors is considered quite poor performance. For repeated examinations, examiner should use 102, 101, 99, or 98 as starting points in order to minimize learning effects. If the patient is unable to do this, "counting backward" is of a lesser degree of difficulty and, finally, "counting forward" may be used. One may also ask the patient to recite the alphabet forward as fast as he can as a similar test with a lower degree of difficulty.

C. Memory

Both recent and past memory may be tested and estimated during the regular history taking. Recent memory includes recall of events since patient's hospitalization - meals he has taken, dates of hospitalization, of hospital procedures, events of hospital day, patient's home address, telephone number, names and birth dates of relatives, current news events. In helping to determine whether the patient is confabulating, some of the above should be checked more than once with the patient and, if possible, with outside sources. In this regard, the question: "Have you seen me before?" may be helpful. The patient who confabulates will often answer in the affirmative, fabricating details of a previous meeting with the examiner that did not take place.

D. Information

The patient's fund of information and vocabulary are the two best indicators of his general level of intelligence, and are particularly useful because of their relative insensitivity to the effects of any but the relatively most severe forms of psychopathology. That is, they are particularly helpful in determining "the pre-morbid" level of intellectual functioning, when there is impairment in other functioning, when there is impairment in other functions as the result of a disease process. Some suggested items are as follows:

1. How many days are there in a week?
2. What must you do to water to make it boil?
3. How many things are there in a dozen?
4. Name the four seasons of the year.
5. What do we celebrate on the 4th of July?
6. How many pounds are there in a ton.

7. What does the stomach do?
8. What is the capital of Greece?
9. Where does the sun set?
10. Who invented the airplane?
11. Why does oil float on water?
12. What do we get turpentine from?
13. When is Labor Day?
14. How far is it from New York to Chicago?
15. What is an hieroglyphic?
16. What is a barometer?
17. Who wrote "Paradise Lost"?
18. What is a prime number?
19. What is Habeas Corpus?
20. Who discovered the South Pole?

Individuals of average intellectual ability should be able to answer correctly from 8 to 13 of these items. Fewer than 8 correct answers is suggestive of below average intelligence, and correct answers to more than 13 of these items suggests above average intellectual ability.

E. Vocabulary

The patient's vocabulary is probably the best indicator of his general intellectual level. This is an attribute, which can be observed and evaluated throughout the interview with the patient, but it can be more specifically tested through presentation of a number of words from the following list, in order of difficulty.

1. Apple
2. Donkey
3. Diamond
4. Nuisance
5. Join
6. Fur
7. Shilling
8. Bacon
9. Tint
10. Armory
11. Fable
12. Nitroglycerin
13. Microscope
14. Stanza
15. Guillotine
16. Plural
17. Seclude
18. Spangle
19. Recede
20. Affliction
21. Chattel
22. Dilatory
23. Flout
24. Amanuensis

Patients must be able to give a reasonable definition or in any other way indicate they understand the meaning of the word. Using the word correctly and appropriately in a sentence also indicates an understanding of the meaning. Persons of average intellectual ability should be able to answer correctly from 8 to 16 of these items. Fewer than 8 correct answers indicate below average intellectual ability.

F. Abstraction

We are interested in the patient's capacity to reason abstractly. This is a particularly important aspect of the patient's intellectual function because of its vulnerability to the effects of organic disturbances, and because of its impairment in certain psychotic states,

particularly schizophrenia. We are concerned with the patient's capacity to generalize, to think in terms of classes of objects and of events, and to understand the meaning and implication of symbols. The capacity for abstraction can be tested in a number of ways, two of which are the use of proverbs and similarities. The use of proverbs for this purpose is subject to some criticism because of the varying familiarity of patients with various proverbs and because of the possibility of patients responding correctly on the basis of "stereotyped" or "habitual" responses, rather than the capacity to perform the reasoning function at the time the proverb is presented. That is, in testing capacity for abstraction, we are interested in the patient's ability to perform this function at the time the proverb is presented. That is, in testing capacity for abstraction, we are interested in the patient's ability to perform this function at the time of the examination rather than a demonstration of having possessed this capacity in the past. The test can be presented in the following way: "You know what a proverb is, don't you? A proverb is a saying. What do people generally mean when they say..." Some proverbs that may be used are as follows:

1. Don't count your chickens before they are hatched.
2. There is no use crying over spilt milk.
3. The wheel that does the squeaking is the wheel that gets the grease.
4. A stitch in time saves nine.
5. As the twig is bent so is the tree inclined.
6. You can catch more flies with honey than with vinegar.
7. It's an ill wind that blows nobody good.
8. The restless sleeper blames the couch.
9. The tongue is the enemy of the neck.
10. The mouse that has but one hole is soon caught.

Persons of average intellectual ability should be able to give adequate responses to at least 4 or 5 items from this list of proverbs.

The testing of the capacity to give similarities is another method of assessing the patient's ability to reason abstractly. Here we are concerned with the patient's capacity to see objects and concepts in terms of "abstract or general classes." The test may be administered in the following way: "I am going to name some things which are the same or alike in certain ways. I want you to tell me in what way they are the same or alike. For example, in what ways are a plum and a peach alike?" Other similarities are as follows:

1. A plum and a peach
2. Beer and wine
3. Cat and mouse
4. Piano and violin
5. Paper and coal
6. Pound and yard
7. Scissors and copper pan
8. Mountain and lake
9. First and last
10. Salt and water
11. Liberty and justice
12. The numbers 49 and 121

Persons of average intellectual ability should be able to answer correctly from 5 to 8 of these. Five adequate responses or less suggests below average intellectual functioning, more than 8 adequate responses suggests above average intellectual functioning.

Note that the patient's response to similarities may be more or less concrete or abstract. For example, recognizing that a plum and a peach both "can be eaten" or "are round" or

"have skins" are all correct in the sense that these are all accurate similarities. However, they are somewhat less abstract responses that recognizing that a plum and a peach are both fruits, i.e., they are members of a class of objects called "fruits."

G. Judgment and Comprehension

As part of the examination of the patient's intellectual function, we are concerned with the extent to which the patient has been able to acquire an understanding of common modes of behavior in society, and an understanding of common social mores and conventions. The extent to which a patient can perform well in this area may be an index of the extent to which he is a socially conforming individual who responds in terms of good judgment. The patient may be asked the following questions:

1. What is the thing to do if you lose a book belonging to the library?
2. Why is it better to build a house with brick than of wood?
3. What should you do if you see a train approaching a broken track?
4. Why is it generally better to give money to an organized charity than to a street beggar?
5. What is the thing to do if a very good friend asks you for something that you don't have?
6. Why are criminals locked up or put in prison?
7. Why should most government positions be filled through Civil Service Examinations?
8. Why does the United States require that a person wait at least two years from the time he makes application until the time he receives his final citizen papers?
9. Why is cotton used in making cloth?
10. Why should a promise be kept?

Persons of average intellectual ability should be able to answer correctly from 4 to 7 of these items. Less than 4 correct responses suggests below average intellectual functioning, while correct answers to 8 or more suggests above average intellectual functioning.

H. Perception and Coordination:

The examination should contain at least a brief examination of the patient's perceptual and visual motor functioning. To this end the patient can be asked to:

1. Write his name (observe the speed and coordination the patient displays; observe the size of the letters, their accuracy, the presence or absence of tremor, etc.) on a sheet of blank paper.
2. Copy a simple circle drawn by the examiner on a sheet of blank paper.
3. Copy a simple cross, drawn by the examiner on a sheet of blank paper.
4. In a similar fashion, the patient is asked to copy a square, a diamond, a row of dots.

In each case we are concerned with the patient's capacity to accurately reproduce the design drawn by the examiner and to do this with a reasonable degree of coordination and speed. Aberrations in the quality of design in terms of the capacity to reproduce angles, corners, circles, and to draw crossing lines, all point toward impairment of the visual, motor, and perceptual processes. All of the above tasks are so simple that one would expect an individual of average intelligence to be reasonably accurate in the performance.

Inability to perform may be suggestive of brain damage or of mental deficiency.

Summary and Conclusion:

The above is an outline of a comprehensive mental status examination. It is neither complete nor is it minimal. If further information is needed to establish the patient's mental status, formal psychological testing is in order. Often it will be the judgment of the examiner that not all of the above outlined tests need to be performed. Often it will not be possible to do all of the examination. For the beginner the rule should be that, in this instance, it is better to do more than necessary than to do less than is needful for a clear picture of the patient's mental functioning. On whatever service the patient, who is examined, finds himself, the record of a history, which does not include some ordered statement of the patient's mental status is incomplete. The outline presented above is one way of ordering the data.