## Basics of Mental Health and Clinical Psychiatry Doctor Sumit Kumar Tata Jain Hospital, Jamshedpur Lecture – 35 Psychological Tests

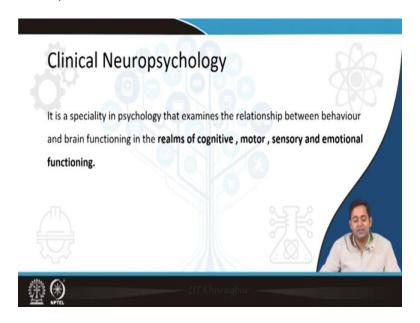
Hello everyone. Let us start lecture number 35 Psychological Tests.

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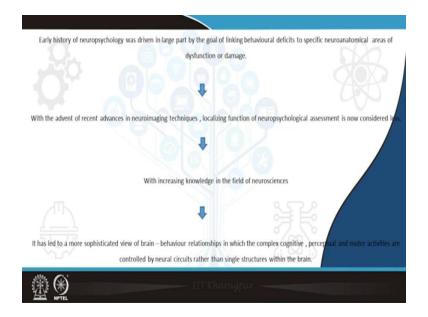
So, the topics which we will be covering is the topic of evolution of neuropsychology; how has it evolved. The components of neuropsychological assessment, what are the components that we need to assess for a neuropsychological assessment, personality assessment, and last the mental status examination; which forms an important part of the psychiatric evaluation.

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Now, clinical neuropsychology: It is a speciality in psychology that examines the relationships between the behavior and brain functioning in the realms of cognitive, motor, sensory and emotional functioning. So, neuropsych is basically a. It is examining a relationship between the brain and the behavior; how are we behaving in response to the thought processes, which is there in our brain.

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Now, talking in terms of the evolution of psychology, neuropsych, early history of neuropsychology was driven in large part by the goal of linking the behavioural deficits to a specific neuroanatomical area of dysfunction. So, there is this problem of this hand, you are not able to voluntarily lift your hand, you are not able to lift your leg, you are not able to walk, you are not able to vocalize.

So, there you we try to link up with the anatomical areas of the brain. So, previously, we used to look like this. So, with the advent of recent advances in neuroimaging techniques like CT, MRI, all those things, PET scans; those localization function of the neuropsychological assessment has become decreased or now considered less.

And with increasing knowledge in the field of neurosciences, it has led to a more sophisticated view of brain behavior relationships, in which the complex cognitive perceptual motor activities are controlled by neural circuits, rather than a single structure in the brain. So, it is by the help of this newer advanced techniques where we have come in to or we have arrived into this conclusion that it is not a particular specific area of the brain, which is responsible for lifting a particular pen, or speaking right now, or moving my hand upwards.

So, it is not a single part of a brain which is responsible for it; it is a whole brain circuit which is involved. And there is synchronization of the cortical, subcortical areas which is actively involved together in order to perform a motor act. So, it is not a specific area which is performing those functions.

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So, commonly used screening instruments, they identify cognitive problems, psychological issues in patients with various neuropsychological and psychiatric illness, when referred to a neuropsychologist is for a comprehensive assessment. So, there you go. We usually ask clinical psychologists to actually assess or actually quantify the intensity of the illness, the depression, OCD, anxiety.

So, actually, the most important part of clinical psychologist is that they not only forms formidable part of the treatment process in a psychiatric illness; but, they actually aid in diagnosis or where in the diagnosis of psychiatric illness. Where there are certain situations, where the clinician, the psychiatrist, they are in confusion whether we are dealing with a psychotic process, neurotic psychiatric illness.

So, they are those delineation is actually done by the clinical psychologist; their part becomes, their role becomes very important. The primary purposes for clinical neuropsychological assessment is to detect neurological dysfunction and guide the differential diagnosis. That is whether there are certain differential diagnosis, certain entities, certain differentials.

So, we need rule out those entities in order to properly channelize the treatment process. What is the psychiatric illness which the therapist, which is the psychiatrist is dealing with? So, the clinical psychologists they actually aid in diagnosis. They characterize changes in cognitive strengths and weaknesses over time, guide recommendations in everyday life, and treatment planning.

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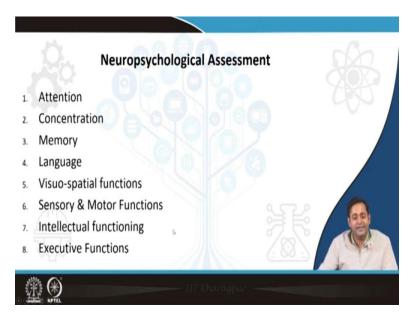
So, there are basically two types; pure flexible battery approach and picture approach. So, pure flexible battery approach. It depends upon the condition of the patient as the type of problem which the patient comes up with like memory problems, visual problems, alter related problems; so, depending on upon that. Example is Benton visual test, where the child is asked to undergo a test where he is asked to identify the geometrical figures of different shapes and sizes.

So, there you see the, there we try to assess the problems of visual as well as memory, the categorization of it. There are possibilities where the localization of the areas where the child might have. The next is the fixed approach. Distinct assessment approach was developing that used a common relatively comprehensive set of measures administered to all patients, regardless of presenting symptoms, neuro-medical history or clinically apparent syndrome, allowing for direct comparison of measures with setup normative samples.

So, here the patient is asked to undergo a set of tests, which is compared to a set of normative samples. So, this is a test which is undergone with whole set of patients; there is this is not specific to the problem encountered in the patient, so it changes. So, here the test is fixed. This is the test which will be undergoing for all kinds of patients; this kind of test is fixed. So, and this

the results of the patient is actually compared with the normative samples available; so, example is Halstead-Reiten battery.

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So what are the components of neurological assessment? It is assessed in the form of attention, concentration, memory, language, visuo-spatial functions, sensory and motor functions, intellectual functioning and executive functions.

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So, how do you assess attention? So, attention is basically divided into selective attention, sustained attention, divided attention, verbal visually short term memory also. So, in case of memory, so let us talk about attention; how it is being assessed. So, for the assessing attention, the patient is asked to recite certain digits like 1 to 5 and 5 to 10, 1, 2, 3, 4, 5.

And depending upon the responses of the patient, the therapist gives scores to the number like 8; even responses, odd responses. Digit forward digit, backward like from 10 to 1 in a reverse manner; here the patient's responses are given in different kinds of scores. So, attention is being assessed in this way. So, in case of child, this is done in case of adult; so, how is its assessing in case of a child?

So, for in case of a child, selective attention is suppose in a class a child is undergoing a lecture; he is listening to a class by a teacher. So, at that point of time, if a student, a fellow friend of his who is talking nearby; his attention is actually divided. So, his attention is divided between the teacher and his friend. So, initially, it was selective attention with the teacher; then, it is a sustained attention because teacher is taking class from at least last 30 minutes, 40 minutes.

So, there is attention which is sustained, so selective has gone into a sustained kind of attention. Now, there the attention is divided between the student who is talking right who is beside him, the friend of his, and teacher who is taking the lecture; so the attention is divided. So, that is how the attention can be assessed.

Next is memory, memory is with recent remote and immediate memories. Immediate memory means you are with seconds and minutes; and in case of recent, you have in minutes and hours. And remote is when? Months and years. So, it is tested by who have you come with? What have you eaten last night? Recent memory is tested by who have you like who came to meet you last night. What have you eaten last night?

What time of the day is it right now? Is it day or night? What time of the, what like what, which day of the week is it? Which month of the year is it? So, this is how you test your orientations and recent memories. How do we test executive function? Executive function is test by asking the patient to recite certain sentences with beginning with certain kind of alphabets like F or R, recite some animal starting with F, recite some places starting with A.

So, there the verbal fluency is actually assessed. Then, we try to see if there is any kind of speech related disturbances, any expressive speech deformity, any comprehension issues are there. So, there the, this is how the executive functions are assessed. Problem solving issues are when you are not able to analyze the thought process; you are all able to figure out this problem of mine can be solved in this particular way.

And you get fumbled up, you get mixed up in this finding a solution to a problem; so, you are not able to actively segregate the problems, the chalk out the problem areas. So, you get mixed up in those. So your planning, problem solving is impaired in when your executive functions are impaired. So for the child, it is seen in cases of block development where the child is asked to create a blocks of a particular design, or a puzzle where the child needs to analyze.

This particular puzzle I need to keep at last, this particular piece of puzzle I need to keep first. So, they need, there has to be a pertain certain planning a programming; and then execution for those executive functions to get assessed; so are assessing this particular way. So, language is I told you, there are expressive and receptive areas. Now, there are visuo-perceptive and visuo-constructive skills that needs to be assessed also.

How are they assessed? Now, there are some drawings and geometrical figures where the patient is asked to develop or create like in a vertical towers, or in a case of copying a drawing the exactly same shape of the figure which is available. In case of visuo-perceptual dysfunctioning where the patient is not able to perceive the images which is being portrayed in the figure.

There the patient might have visuo-perception functioning problems; or if there is visuo-constructive, from now where the patient is altogether not able to perceive the visual images. So, this can be a problem, these kinds of problems can be, this type of problems can attribute to in normal day-to-day life processes, where he might not or she might not be able to execute normal day-to-day processes. So, visuo-constructive process and visuo-perceptive process, which importantly forms the essential part of the assessment of the neuropsych.

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Among sensory-motor functioning, you have visual field assessment, you have auditory perception, Agnosias where you are able to know this is the hand which is kept behind somebody's touching me. We need to figure out, this is the finger which is touching from the back. Somebody's you need to close the eyes of the patient; and I need to ask which where is the point the patient is touching the patient.

So, we need to analyze the areas, the various Agnosias needs to be assessed. And demonstrate gait by assessing the various voluntary functions if it is impaired or not.

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Intellectual functioning is actually assessed by Wechsler intelligence scale. There are basically three count components where the intellectual functioning is assessed. One is verbal IQ, performance IQ, and ultimately with all those calculations full skill IQs governed.

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Next come to personality assessment. Personality is actually defined as an enduring pervasive motivations, emotions, interpersonal styles, attitudes and traits. It measures the concepts such as depression, anger, anxiety. What are the purposes of psychological testing that is to assist in

differential diagnosis and aid of psychotherapy? So, we need we will be beforehand knowing what is the kind of therapy which the patient requires for this particular kind of problem. So, we need to give that particular or specific kind of therapy to the patients.

So, it aids in psychotherapy and it assisting in differential diagnosis to write to delineate the different where various psychiatric illnesses. It is used in pre-treatment planning, assessing, evaluating the effectiveness of the therapy. Objective tests allow patients to compare with objective norms that is the set of data which is available; and those questionnaires which is given to the patient in objective test, they are allowed to compare with the data available at hand.

And in projective test, this test actually portray the conscious mental process which the patient undergoing at that point of time. So, he actually reflects his own thought processes, his own needs towards the blank screen in a projective test. And it provides a baseline information which can be repeated to assess the change.

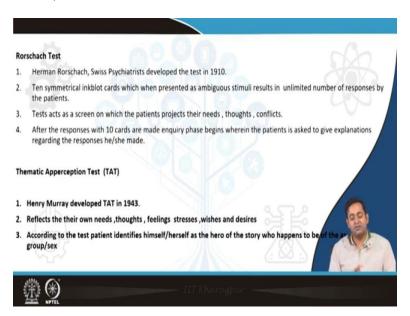
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So, basically of two types; objective personality test and projective personality test. So, the types of projective personality tests are Rorschach test, Thematic Apperception Test, sentence competition test, and make a picture story. So, the projective personality test, these are unstructured and indirect tests.

Their responses are indefinite for the questions being asked, allows patients to fantasize to be expressed, assess the personality as a whole. It is difficult to feel, you are not able to; it is very difficult to fabricate the test, and it focuses on the unconscious aspect of the personality.

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Let us come to Rorschach and Thematic Apperception Test in detail. So what is the Rorschach test? It was given by Herman Rorschach, a Swiss psychiatrist in 1910. There are ten symmetrical inkblot cards in Rorschach tests, which when presented as is gives ambiguous stimuli; and it results in innumerable number of responses.

So, this ten cards and it is shown each one by one to the patient. And by seeing the card, the figures the patient gives his own description of events like what is he undergoing at that point of time. What is he seeing the depiction in the card is asked for the patient to (tell). What are you seeing in the card and asked to elaborate on the details. So, test acts as a screen on which the patient projects their needs, thoughts and conflicts.

So, depending upon the card, the description of the card, the figures, patients actually project its own needs, its own conflicts towards the figures which is seen in the cards. So, after the responses those ten cards is being shown to the patient; inquiry phase begins where in the patient is asked to give explanations of the those wordings, those expressions which you have told in the beginning.

So, he needs, he or she needs to explain, clarify those thought processes as to how and why you told this particular reason for this particular card. So, next is Thematic Apperception Test. This is this was given by Henry Murray in 1943. And it reflects their own needs as normal as a Rorschach test feelings, stresses and wishes and desires. So, according to this test, the patient identifies himself or herself as a story who happens to be of the same age group or sex.

So, this Thematic Apperception Test, there are six, 6 to 10 cards; and each card has a story. So, on exposing the card to the patient, patient identifies himself as the main character in the figure. And he tries to project his own needs towards the, towards the card which has been shown to the patient; so his own needs and his own feelings fantasies are being projected.

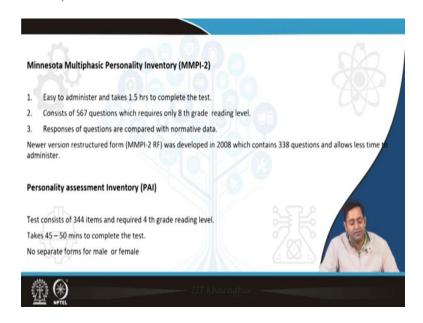
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So, what are objective personality tests? Now, projective tests were unstructured and indirect; these tests are structured, and they are there are specific questions which are asked to the patients. Patients are given a set of questions and compared with a normative group; a set of data which is available, the answers are compared to those data.

The degree to which patients deviates from the norm is noted and using the interpretive processes. What are the examples of objective personality tests? These are Minnesota Multiphasic Inventory, Million Clinical Multiaxial Inventory, Eysenck Personality Questionnaires, Tennessee Self Concept, and Personality Assessment Inventories.

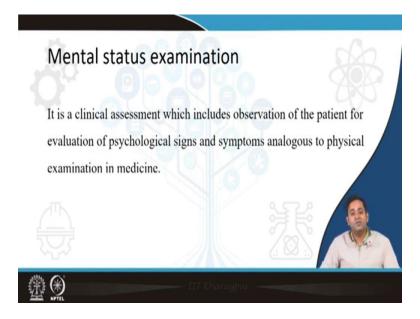
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Now, what is an MMPI? It is easy to administer and takes hour half hours to actually complete the test, consists of 567 questions, which requires only eighth grade level of understanding. Responses of questions are compared with the normative set of data. We have a newer version of MMPI it is restructured form, where the questions have been reduced from 567 to 338; and it allows less time to administer the test.

Next is personality assessment inventory. The test consists of 344 items and it requires the class 4 understanding level; takes 45 to 50 minutes to complete the test. And there are no separate forms for male female as which is found in MMPIs.

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Next come to mini, the mental status examination. Now, this examination forms an important part of the assessment of psychiatric assessment. It is a clinical assessment, which includes observation of the patient for evaluation of physical of psychological signs and symptoms, analogous to the physical examination in medicine that is inspection, palpation, percussion and auscultation. It is analogous to that.

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So, it starts with the general appearance of the patient. Now, as the patient walks in towards a mental health professional or a psychiatrist or clinical psychologist, there has to be a description just by looking the general appearance of the patient. Now, this general appearance has certain components; its physical appearance its age estimate, body built.

All those three components are most important. Later comes the eye contact with the examiner, the dress of the patient which he or she is wearing, his touch with the surroundings, facial expression of the patient at that point of time. The posture which he or she is maintaining at that point of time, attitude towards the examiner, rapport and the motor behavior; these are some components which needs to be assessed while undergoing a mental status examination.

So, among physical appearance, your age can be according to the, age estimate can be according to what you are looking, or it looks more than the age. So, it is mostly seen in case of schizophrenia where the patient looks more than the constitutional age of his. Like 40 year person may look more than 50, 55 years because of its graying of the hairs, brittle skin, wrinkled skin.

All those kinds of degraded processes that has been has an, it has started; or it has increased because of the schizophrenia. So, body built: there are two systems which were proposed that is proposed by Kretschmer and Sheldon. They proposed that pyknic were, pyknic are the shorts

shorting built with these kinds of patients who are mostly suffering from bipolar disorders, mood disorders. Leptosomes are the thinner ones, and athletic ones are the more muscular built ones.

Sheldon proposed endomorphs, ectomorphs, and mesomorphs similar to as pyknic, leptosomes and athletics. An important component is contact with the eye contact with the examiner. Now, as the patient presents to you in front of the therapist, mental health professional or a psychiatrist; the eye contact, making of the eye contact with the examiner forms an important component of the assessment.

The partial my contact signifies or it is suggestive; it does not give a diagnostic. It is a suggestive that a patient might be suffering from anxiety disorder or a depressive disorder. And then there is total eye contact. There can be patients suffering from schizophrenia or a persistent delusional disorder; because the patient thinks the person in front of him might be able to harm him, or he or she is having plans to persecute him or he is after him.

So, he is always on the lookout for, he is always anticipating something on the other.

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So, dress: this is one of the most important components of general appearance. So, dress means sometimes patient they are overly dressed. So, this overly dressed is commonly looked in cases of manic patients, where they are wearing goggles, they are old, they are (draing) wearing jackets

suits in a very summer kind of season. So, there they may be very shabby clothes torn, their hairs are scattered; there may be beard, so it is ill ill combed hairs.

So, there is all kinds of feeling, there is all kind of appearance gives the kind of appreciate, the appreciation of patients suffering from mental illness. So, touch with surroundings, conscious awareness of the surroundings; he or she might not be aware. So, facial expression, a very important component where a manic patients can be irritable mania or juggler mania. So, in both these cases patient might be very happy or can be very irritable.

In case of depression, patient might be depressed; the angles of the mouths will be lowered drooped down, strumming of the shoulders will be lowered. They might be frowning present over the forehead; so all these things has to be looked out for. Posture: depending upon the posture, you have catatonia; there can be depression where your shoulders might be drooped down; you feel low, sulky, glooming.

And in case of schizophrenia, paranoid schizophrenia, the patient might have a very anxious kind of look, anticipating like some parting, some persons are like plan to build up a plot; so they are always on the lookout for. So, this kind of posture changes, postural changes are always assessed and looked out. Sometimes abnormal movement present in case of tardive dyskinesias or dystonias; this give a false proxy indicator of patient might be suffering from some kind of movement disorders.

So, attitude towards examiner's- patient can be guarded in case of harboring delusions or hallucinatory process, psychotic processes; they are not able to express their innermost emotions because of the psychotic process. Evasiveness: they are trying to escape from the questions which is being asked to them. And hostile when they are actively showing their aggression; they are irritable, agitated.

Rapport forms an important component of mental status examination. Because, if there is no rapport built up between the therapist, mental health professional, and the patient; we cannot progress towards the mood and effect or the higher mental functions of the assessment of the mental status examination.

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So, among higher mental functions, next you have certain components; that is consciousness, attention, concentration, memory, abstract stability, and intellectual functioning. So, higher mental functions, consciousness means you are; there are levels of consciousness like consciousness, drowsy, stupor, (tupor), and coma, and death. So, you are consciously aware of the surroundings where you are in at that point of time.

Attention is where you try to see you are specifically focusing on a specific point of reference, you are attentive. Concentration means when you are, when this attention of yours is actually sustained for a period of time. So, you are trying to assess this patient of mind is able to concentrate for a particular period of time.

These all can be assessed with the help of those digit forward, digit backward test, those repeating sentences or words backward manner, repeating digits 1 to 10 in a reverse kind of manner 10 to 1. Memory is assessed in a form of immediate recent remote memory, abstract abilities when you trying to see the awareness.

The formidable aspect of the knowledge of the patient; the fund of knowledge which is there, which if he or she is able to comprehend the essence of the communication which is there with the patient and the therapist. And intellectual functioning is the it is related to performance IQ and intellectual IQ.

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Next is mood and affect. Mood as very well know is a constant, pervasive feeling, emotional tone which is which colors the emotional feeling tone of the patient. So, affect and mood the basic difference is affect is the cross-sectional appearance of the patient; and mood is the where it has a connotation from last six weeks, one month how is the mood of the patient?

So, if a therapist asks to a patient how is your mood; it means how is the mood from last one month or last 15 days. So, affect is the response of your internal environment, the internal mood state towards the external; so, affect is that. So, subjectively and objectively it has been expressed. So, what the patient's responds to it is the subjective component of the affect; and what the interviewer sees, what the mental health professional sees, it becomes the objective evaluation objective part of the evaluation.

And there are certain parameters under which the affect has to be assessed. Thus, the quality, intensity, mobility, range, (restrict), reactivity, communicability appropriateness, Diurnal variation; now, quality. Quality is like you have the those quality of affects; you might be depressed in case of depression. You might find sound low, self key blooming, you might be elated, euphoric in case of mania, you might be perplexed, confused, or anxious in case of schizophrenia, or any anxiety disorders, panic disorders.

So, these are the types of quality of affects. Intensity is when you have emotional strength of emotional expression, how is the intensity; like in case of schizophrenia, the emotional expression is very blunt. The patient does not respond readily with the questions asked to the patient; so there can be blunt responses, shallow responses, or there can be no response at all, leading to flat.

So, mobility is constricted, mobile and fixed. Mobility means there is alternative range of expressions, emotional expressions. So, in mania, it is mostly seen this liability is present in the in case; liability is present in case of mania. There is rapid alternative change of expression; that is crying as well as laughing in cases of patients suffering from mania.

So, reactivity means there is reciprocal response of the patient of the situation which he or she is exposed to. Suppose, in a case of funeral, if a manic patient is attending; he while, he will be laughing and trying. Schizophrenic patient in a case of funeral, he might not; he will, his emotions will not be congruent to the situation present there. So, there you have those inappropriateness to this situation; the communicability of the affect.

Communicability means, many people from very far distances if they are coming, we will be able to get out; this person is manic, because they are very elated, they are very much euphoric. For depressed patients, they are very much depressed; they are low, sulky feeling, they do not talk much often. So, it is must it is actually expressed out of obviously. Diurnal variation is there is a difference of emotional tone in the morning and at in the evenings, just like the temperature in the morning and the evenings.

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Thought Process you have form, stream, possession and content. Form means all sorts of formal thought disorders that the patient might have. Circumstantiality, tangentiality, loosening of associations, thought block, this all happens in case of schizophrenia psychotic disorders. Stream you have flight of ideas seen in mania; possession you have thought withdrawal, thought insertion, thought broadcasting, where the patient feels that there is some external force which is actually trying to control me.

This thought process of mind is not mine, but it is being forcibly thrown it inside my head by some external agency; there is thought insertion. Thought broadcasting is when the public everywhere around me knows that whatever I am thinking right now, is been known to everyone else. And this everyone else how have they come into the conclusion? How they know it? With the help of broadcasting through emails, through internet, through waves, all these kinds of things. What is the thought content? What contents are those? Delusions, those obsessions, compulsions, those overvalued ideations, your suicidal ideations those are the thought contents.

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So, next is perceptual abnormalities. Perceptual abnormalities are in the form of hallucinations, illusions, pseudo hallucinations, depersonalization phenomena and derealization phenomena. Next is judgment where you have social judgment, personal judgment and test judgment. Social judgment is how do you relate your with your friends and families; and personal judgment means, how you are performing in your everyday life.

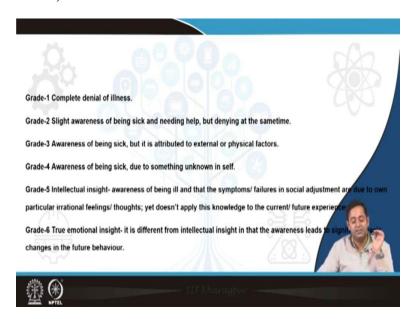
Test judgment means when the patient is asked to rationalize or take a decision in a emergency kind of situations, like you are sitting in a room and suddenly the fire breaks out. How are you going to save the people and yourself? So, if the patient is able to think rationally and act accordingly, then the assessment is that he is having a valid test judgment.

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So, last is insight. Insight is actually a multi-dimensional concept. It includes awareness, attribution of the symptoms, appraisal or analysis of the consequences of such symptoms, and acceptance of the treatment. So, it is basically by six stages.

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That is complete denial of illness in the first stage when the patient altogether rejects that he is having illness. Second is slight awareness of being sick, and at all at the same time denying that

he is not sick. Third is awareness of being sick, but attribution that is given that this sickness of mind is due to some physical factors or external factors.

Fourth: he accepts and tells, this is the reason this somewhere in the body I am having some problems for which I am having illness. Fifth is the intellectual insight. There is awareness that I am ill, but the knowledge of taking treatment which should be there. The knowledge is there that this particular illness can be solved, if I take particular kind of treatment; but he is not taking treatment to change the condition of his. And last is true emotional insight that is a normal insight of the patient.

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So in this lecture, we have discussed regarding the evolution of neuropsych, the components of neuropsychology, personality assessment, and mental status examination. Thank you.