Conducting a mental state examination

Introduction

The mental state examination begins as soon as the patient walks into the consultation room, and describes the symptoms experienced or exhibited at the time of the examination. It serves the purpose of confirming or supporting the diagnosis suggested by the history. The mental state examination can be divided into the following categories: appearance and behaviour, speech, mood, thought content, perceptions, cognition, and insight.

Appearance and behaviour

The physical characteristics of the patient (age, height, build, ethnic origin, presence of any scars and tattoos) and the level of personal care (evidence of self neglect – unkempt appearance) should be described. Any bizarre clothing and accessories should be mentioned. Bright colours may be worn by manic patients, in contrast to dull colours worn by depressed patients.

Observe for the presence of any abnormal movements and postures. There may be drug-induced movement disorders in patients on antipsychotics, such as dystonia (involuntary muscle contraction), akathisia (motor restlessness), parkinsonism (tremor, akinesia and rigidity) and tardive dyskinesia (involuntary movements, usually affecting the tongue, jaw and neck).

Patients with schizophrenia may present with mannerisms (voluntary, goal-directed movements, e.g. unusual hand movements when greeting), stereotypies (repetitive, non-goal-directed movements, e.g. rubbing right hand over left thumb) and unusual posturing. They may appear to be responding to auditory hallucinations. There may be evidence of hyperactivity (increased motor activity, seen in manic patients), or signs of psychomotor retardation (slowness of initiation, execution and completion of physical activity and slowness of mental activity) which may be seen in severe depression.

The patient may appear irritable, distractible and aggressive, or may be disinhibited and inappropriate in his/her behaviour (for example, manic patients may appear over familiar). The level of eye contact, which may be decreased in depression, and the ease of establishing rapport should be commented on.

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Speech

Comment on the rate, tone, volume, quantity and spontaneity of speech. In depression there may be reduced tone, quantity and spontaneity, with long pauses. Words may be spoken more slowly. In a patient with mania there is often rapid speech, with increased quantity, spontaneity and ‘pressure of speech’, which may be difficult to interrupt. This should be distinguished from anxiety where speech may be rapid, but interruptible.

Observe for any abnormalities in the form of speech. Verbatim examples of speech should be given to illustrate abnormalities. These include:

- Flight of ideas: rapid succession of thoughts that are related by content, meaning or sound (rhymes and punning may be used). Seen most commonly in mania
- Knight’s move thinking (loosening of association, derailment): no logical association between successive thoughts. Occurs in schizophrenia. If extreme it can give rise to word salad (schizophasia), an incomprehensible jumble of words
- Neologisms: invention of new words, or existing words are attributed a new meaning. When existing words are attributed a new personal meaning this is described as a metonym. Seen in schizophrenia

- There may be signs of organic disease such as perseveration (repetition of words/concepts beyond the point at which they are relevant, e.g. in dementia), dysphasia and dysarthria (e.g. cerebrovascular accidents)
- Thought blocking: A sudden interuption in the train of thought before the thought has been completely expressed. The patient experiences the thoughts as breaking off or ceasing and is unable to recall the thoughts. It can occur as a result of poor concentration but also occurs in schizophrenia, where it may occur in the context of thought withdrawal (see below).

Mood

The mood may be apparent from the patient's history or appearance. Questions such as 'how do you feel within your self?' or 'what is your mood or spirits like?' may be useful in gaining further information.

'Mood' is the subjective experience by the patient of the emotional state, prevailing over a period of time. There are different terms used to describe mood – depression, elation, emotional lability (rapid changes of mood from one extreme to another), euphoria (excessive and unreasonable cheerfulness), ecstasy (extreme wellbeing), apathy (absence of feeling), and anxiety. If there is evidence of depressed or elated mood, enquire about symptoms of depression (*Table 1*) and mania (*Table 2*), and in particular suicidal ideation.

The patient's affect should also be described (emotions objectively observed during the interview). If the patient is depressed the affect may be unreactive or flattened (limitation of the usual range of appropriate emotions). Blunting of affect is used to describe a lack of emotional sensitivity and may occur in schizophrenia. An affect is described as inappropriate if it is out of context to the situation, e.g. laughing on hearing sad news, described as an incongruous affect.

Thought content

The presence of any preoccupations, obsessions, phobias, over-valued ideas and delusions should be described here.

- Obsessions: recurrent and persistent thoughts, images or impulses that are recognized as irrational and cannot be resisted. The patient recognizes that these are his/her thoughts. Examples include contamination, aggression and sexual thoughts.

  These may be associated with compulsions in order to reduce anxiety, such as hand washing (in obsessions about contamination) or repeatedly checking. Useful questions include: 'do unpleasant thoughts keep going round in your head', 'do you keep checking things you know you have already done?'
- Phobias: this is a persistent fear of an object, situation or an activity, which is out of proportion to the situation, cannot be reasoned away and leads to avoidance.
- Over-valued idea: an unreasonable and sustained preoccupation that the patient is able to acknowledge might be untrue. These are associated with a strong affective response and abnormal personality (e.g. a patient with anorexia believing she is fat).
- Delusion: a false, unshakeable idea or belief, which is out of keeping with the patient's social and cultural background and is held with conviction. Delusions have a personal significance and reflects how the individual views the world. Delusions should be identified according to their content (*Table 3* provides a list of different delusions and their diagnostic significance). Examples of questions include: 'is anyone deliberately trying to harm you' (persecutory delusion), 'do people drop hints about you or say things with a double meaning?' (delusions of reference), 'Do you feel as if an external force is trying to control you in some way?' (delusion of passivity).
- Any thoughts of harm to self and others should be reported along with the degree of planning and preparation (e.g. access to weapons) and desire to harm.

Abnormal perceptions

These can be categorized under sensory distortions and sensory deceptions.

Table 1. Typical symptoms of depression
Low mood
Diurnal variation in mood (worse in the morning)
Loss of interest or pleasure (anhedonia)
Lack of energy and tiredness
Loss of appetite and weight loss
Difficulty concentrating
Disturbance in sleep pattern and early morning awakening (waking up 2 hours before the usual time)
Loss of confidence and self esteem
Thoughts of feeling hopeless, helpless and worthless

Table 2. Symptoms of mania
Elevated or irritable mood
Increased activity or physical restlessness
Decreased need for sleep
Increased talkativeness
Flights of ideas or subjective experience of thoughts racing
Loss of normal social inhibitions
Reckless behaviour (spending sprees, risky enterprises, reckless driving)
Grandiosity
Mood congruent psychotic symptoms (delusions of grandeur, voices telling patient he/she has special powers)

Table 3. Different types of delusions and their diagnostic significance

Content of delusion	Description	Diagnostic significance
Persecutory	Commonest delusion. Believes that others are trying to harm him/her	Schizophrenia, affective disorders, organic disorders
Reference	Objects and events have a significance to the patient. Believes he/she is being talked about or discussed on the radio or TV	Schizophrenia, affective disorders
Grandiose	Believes he/she is someone 'special' (God, famous celebrity), or has special powers and wealth	Mania, schizophrenia, delusional disorder, organic disorders
Nihilistic	Organs are dead, or they themselves are dead	Severe depression, schizophrenia, organic states
Guilt	Believes that he/she has committed a great sin and deserves to be punished	Depression
Poverty	Believes he/she is impoverished	Depression
Hypochondriacal	He/she has a dreadful disease (e.g. cancer, tuberculosis)	Delusional disorder, depression, schizophrenia
Passivity	External agency is controlling aspects of the person such as feelings, impulses, actions and bodily sensations	Schizophrenia
Possession of thought (thought alienation)	Believes thoughts are under control of an outside agency	
Thought insertion	Thoughts are being inserted into the mind	
Thought withdrawal	Thoughts are being removed from the mind	Schizophrenia
Thought broadcast	Thoughts are being broadcast so they can be perceived by others	
Religious	Belief that God can communicate with him/her	Mania, schizophrenia

Sensory distortion

This is when a real perceptual object is perceived as distorted. The intensity of the perception may be heightened (hyperaesthesia), or decreased (hypoaesthesia). The size of the object may be distorted (dysmegalopsia) and it may be reduced in size (micropsia) or increased (macropsia). Changes in shape are described as metamorphopsia. Such symptoms may occur in drug toxicity and organic disorders such as epilepsy.

Sensory deceptions

Illusion

A false perception of a real external stimulus, e.g. a shadow of a tree in the dark may be misinterpreted as a man. They are more likely to occur when the patient's consciousness is reduced or as a result of impaired attention.

Hallucinations

A false perception in the absence of a real external stimulus, e.g. hearing a voice when alone in a room. It has the same quality as a normal perception, and is experienced in objective space and not subject to conscious manipulation (e.g. the voice cannot be stopped). Useful questions in examining the presence of hallucinations include: 'have you had any unusual experiences?', 'do you hear sounds or voices when you are alone or that no one else can hear?' Hallucinations should be classified according to the sensory modality they involve. *Table 4* lists different types of hallucinations.

Pseudohallucination

A form of perception that arises in the internal subjective space of the mind and lacks the substantiality of a normal perception. They may be vivid and are not under conscious manipulation. They are also described as hallucinations with insight (patient is aware that the hallucination is not real). They may occur in people with borderline personality, who may, for example, complain of hearing the voice of their abuser in their head at times of stress.

Cognition

Enquire about orientation to time, place and person and test attention and concentration (e.g. subtraction of serial 7s from 100). In elderly patients and in all those with suspected memory problems, a mini mental state examination should be conducted (*Table 5*), with a score less than 24 indicating possible dementia. Further neuro-psychiatric testing may then be required.

Insight

It is important to assess the patient's attitude to his/her current state. Does the patient believe he/she is unwell and how are the symptoms explained? Do they describe their illness as 'physical' or 'psychological' and can they identify possible connections between their illness and stressful events? Do they have the ability to re-label psychological phenomena as pathological? Does the patient believe treat-

KEY POINTS

- The mental state examination should focus on the signs and symptoms present at the time of the examination.
- It should serve to confirm the findings suggested by the history.
- It is good practice to report positive findings and to only report negative findings where it is relevant.
- It is important to observe and listen to the patient carefully, and helpful to have a stock list of questions, which can be used to explore abnormal thoughts and perceptions.
- The key to a good mental state examination is practice.

Table 4. Types of hallucinations and their diagnostic significance

Type of hallucination		Description	Diagnostic significance
Auditory	Elementary	Unstructured sounds (e.g. whistling, rattling)	Organic states (e.g. delirium)
	Organized	Words/sentences	
	Second person	Voices talking directly to patient	Affective disorders, organic disorders
	Third person	Voices talking about the person, e.g. 'running commentary'	Schizophrenia
Visual	Elementary	Flashes	Organic states, less commonly in affective disorders and psychosis
	Organized	Complex perceptions of objects and scenes	
Olfactory		'Bad smells' such as 'burning rubber' smell of urine	Epilepsy, especially temporal lobe epilepsy (aura), other organic states, schizophrenia, depression
Gustatory		Uncommon, usually of an offensive taste	Temporal lobe epilepsy
Haptic		Hallucination of touch	
	Formication	Sensation of insects crawling on or under the skin	Cocaine addiction or alcohol withdrawal
Hygric		Perception of fluid, e.g. 'I can feel a water level in my chest'	Schizophrenia
Thermic		Perception of heat or cold	Schizophrenia
Kinaesthetic		Joint movement sense	Benzodiazepine withdrawal, schizophrenia
Visceral		Sensations from inner organs	Schizophrenia
Hypnogogic Hypnopompic		Hallucinations occurring while going to sleep Or on waking	May be normal experiences, or caused by narcolepsy, toxic states, schizophrenia, depression
Functional		A normal perception leads to a hallucination in the same modality, e.g. hearing voices when hearing the tap running	Schizophrenia
Reflex		A hallucination produced in one sensory modality provoked by a stimulus in another modality	Mescaline intoxication, schizophrenia

ment is warranted and if so, what type? Insight is often greatly impaired in patients with psychosis, while patients with depression and anxiety may have full insight.

Conclusions

The mental state examination should routinely be described after the history and is important in diagnosis. It should then be followed by a thorough physical examination to exclude any physical causes for the described symptoms. Blood tests are routinely carried out to exclude disorders such as thyroid abnormalities and imaging may occasionally be necessary. **BJHM**

Conflict of interest: none.

Folstein MF, Folstein SE, McHugh PR (1975) Mini Mental State: A practical method for grading the state of patients for the clinician. *J Psychiatr Res* **12**: 189–98

Further reading

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McAllister RH, Lunn B (2004) Clinical assessment and investigation in psychiatry. *Medicine* **32:** 3–7
Sims A (2003) *Symptoms in the Mind.* 3rd edn. Saunders, Edinburgh

Table 5. Mini mental state examination

Orientation	What is the year, season, month, day, date? (1 point each out of 5)
	Where are we: country, county, town, hospital, floor? (1 point for each out of 5)
Registration	Name three objects (apple, table, penny). Ask to repeat all three (1 point for each out of 3)
Attention	Serial 7s or spell 'world' backwards (1 point each out of 5)
Recall	Ask for the name of the three objects in 'registration' (1 point for each out of 3)
Language	Point to a pencil and a watch, ask patient to name objects (1 point each out of 2)
	Repeat 'no ifs ands or buts' (1 point)
	Follow a three stage command: 'take the paper with your right hand, fold it in half and put it on the floor' (1 point for each out of 3)
	Read and obey the following: 'Close your eyes' (1 point)
	Ask the patient to write a sentence. It should contain a subject and an object. Ignore spelling mistakes (1 point)
	Ask the patient to copy a design of two overlapping pentagons (1 point)
Maximum score = 30	

From Folstein et al (1975)