

Syllabus of psychiatry and psychology lectures. Al-Mustansiriya University-College of Medicine 2015-2016

week	التاريخ	الساعة الاولى (احد)	الساعة الثانية (احد)	الساعة الثالثة (اثنين)
1	4 th and 5 th october	Introduction to psychiatry and terminology	Anxiety disorders (1)	Anxiety disorders (2)
2	11 th and 12 th oct.	Mood dis. (1) depression	Mood dis. (2) depression	Mood dis. (3) Bipolar (mania)
3	18 th and 19 th oct.	Stress and attachment (psychology)	Stress disorders (1) PTSD (psychiatry)	Stress disorders (2) conti. (psychiatry)
4	25 th and 26 th oct.	Schizophrenia 1	Schizophrenia 2	Schizophrenia 3
5	1 st and 2 nd nov.	Communication skills (psychology)	Somatoform dis. 1 (psychiatry)	Somatoform dis. 2 (psychiatry)
6	8 th and 9 th nov.	Emotions (psychology)	Obsessive Comp. Dis (OCD) 1	OCD 2
7	15 th and 16 th nov.	Motivaiton (psychology)	Addiction 1 (alcohol)	Addiction 2
8	22 nd and 23 rd nov.	Life cycle (psychology)	Delirium and confusion	dementia
9	29 th and 30 th nov.	Personality (psychology)	Psychotherapy 1	Psychotherapy 2
10	6 th and 7 th dec.	Learning (psychology)	Psychiatric rehabilitation	Forensic psychiatry
11	13 th and 14 th dec.	Sick role and illness behavior (psychology)	Sexual disorders	Sleep disorders
12	20 th and 21 st dec.	Doctor patient relationship (psychology)	Social psychology 1	Social psychology 2
13	27 th and 28 th dec.	Eating disorders	Psychiatry in relation to medicine	Suicide and violence
14	3 rd and 4 th jan.	Child psychiatry	Child psychiatry	Women psychiatry
15	10 th and 11 th jan.	Psychopharmacotherapy 1	Psychopharmacotherapy 2	Electroconvulsive therapy

1. INTRODUCTION TO PSYCHIATRY

Myths about psychiatry:

Most societies have myths about psychiatry. These include: all mental illnesses are one disease named "Craziness", and it is mostly caused by Jinn possession, or by witchcraft. Patients never get better, they are dangerous, they are mentally retarded, they cannot participate in society and they should be confined to asylums مصحات , where psychiatrists work, those psychiatrists sometimes abuse the patients by torturing them with electricity, or give them medications that worsen the patients' conditions.

History of psychiatry:

- Ancient times. The Babylonians considered epilepsy as caused by devils, nevertheless they regarded phobias and obsessions are the responsibility of the doctor and not the clergy.
- 700-1400: Psychiatric units in Baghdad hospitals and in Mustanseryia University.
- 1900: Freud and his psychoanalytic theory which gave psychological and social explanation to mental illnesses.
- 1930s: neurotransmitters discovered (Nobel Prize). Some patients who has mental illness plus epilepsy seemed to improve in their mental status after every seizure, the improvement lasts for a week to a month: this finding lead to use of electroconvulsive therapy (ECT).
- 1940s-50s: Lithium, Chlorpromazine, Benzodiazepines, & Tricyclic antidepressants (TCAs) were produced and double-blind studies gave evidence for their efficacy. DSM-I was made (DSM=Diagnostic and Statistical Manual. It classifies mental illness).
- 1960s -70s: the antipsychiatry movement. Some psychiatrists joined the movement and made scientific studies. Some asylums المصحات were discovered to make the patients worst than s/he were before admission. This lead to revision of what was being done in asylums.
- 1980s-90s: new drugs, new psychotherapies like the Cognitive Behavioral Therapy (CBT) were discovered and evidence showed their efficacy. Many asylums were closed and general hospitals started to have psychiatric units in it and the mentally ill patients were encouraged to live in the society and to participate in life.

Terminology:

1. Disorders of perception: illusions and hallucinations. **Illusions are defined as misperception of real external sensory stimuli.** If occur in delirium (=confusion). E.g.: elderly patient, at night, in the intensive care unit sees the wires attached to his chest to take ECG as snakes. The treatment is to reassure the patient and open the lights at night. Illusion can occur in normal people. **Hallucinations are false sensory perception not associated with real external stimulus.** Hallucinations in schizophrenia, bipolar disorder, and major depressive disorder with psychotic feature are usually auditory. Visual hallucinations occurs more in organic cases (brain tumor, wilson's disease, Lewy-Body dementia, etc..). Olfactory hallucinations occur in partial complex epilepsy (e.g.: smelling burning rubber in temporal lobe epilepsy (TLE)). Hallucinations can be also gustatory تذوقية and somatic جسمانية . example of somatic hallucinations is the feeling that there are worms or bugs on the skin of the patient (occur in cocaine withdrawal and called cocaine bug).
2. Disorders of thought: it can be disorder of content, or form, or stream تيار of thought. Disorders of content are:
 - a. **Disorders of thought Content:** these include delusions, obsessions, and overvalued ideas. We can add here also suicidal thoughts and homicidal thoughts.

Delusions are false beliefs, based on incorrect conclusion about external reality, not consistent with patient's culture. Delusions do not occur in normal people. There are different types of delusions for different types of mental illnesses:

- (i) Bizzare delusion: an impossible strange belief (e.g.: invaders from the space have implanted electrodes into my brain). This occurs usually in schizophrenia.
- (ii) Paranoid delusions: includes persecutory اضطهادية delusions, delusions of reference تشير إليه أو تعنيه بالقصد, and grandiose العظمة delusions. In persecutory delusions the patient believes that there is a plan to hurt him (e.g. poisons put in food, police try to kill him etc..). In delusions of reference the patients believe that people are watching or following him, or refer to him (e.g. people in the TV or radio are talking about the patient). In grandiose delusions the patient exaggerates his importance, power, or identity. Paranoid delusions usually occur in schizophrenia (paranoid subtype), or delusional disorder, but also can occur in other disorders like grandiose delusions in bipolar disorder (in manic episodes). Grandiose delusion in a manic episode is **mood-congruent** متماشي مع المزاج.
- (iii) Nihilistic delusion: false feeling that self, others, or the world is nonexistent or coming to an end. Nihilistic delusion in major depressive disorder with psychotic features is **mood-congruent**.

- (iv) Delusion of infidelity (delusional jealousy): false belief derived from pathological jealousy about a person's partner being unfaithful. Occur in delusional disorder and schizophrenia. This delusion is dangerous and lead sometimes to violence. Geographical separation is sometimes advised.
- (v) Erotomania: delusional belief, more common in women than in men, that someone is deeply in love with them. Occur in delusional disorder, schizophrenia, and bipolar disorder.
- (vi) Delusion of self-accusation إتهام الذات: false feeling of remorse and guilt. This is a **mood-congruent** delusion when occur in major depressive disorder with psychotic features.
- (vii) Delusions of control: false feeling that a person's will, thought, or feelings are being controlled by external forces and include: thought withdrawal, thought insertion, and thought broadcasting. Occur usually in schizophrenia.
- (viii) There are other types of delusions.

Obsessions: An idea, image, or impulse which is recognized by the patient as their own, but which is experienced as repetitive, intrusive إقتحامية , and distressing. It occurs mainly in obsessive-compulsive disorder, but can also occur in schizophrenia, depression. It can occur in a mild degree in normal people.

Under the term "Thought Content" we can also put: suicidal ideas, and homicidal ideas, as these two ideas are dangerous and we must ask about them when the patient seems to have risk of them: e.g. risk of suicide in depression, and risk of homicide in morbid jealousy.

- b. **Disorder of form of thought** (also called Formal Thought Disorders) appears in the patient's speech and the most important type is called: loosening of association, in which there is a lack of meaningful connection between sequential ideas.
 - c. **Disorders of stream or speed of thoughts** include mainly what is called as: "Pressure of thought" which is the subjective experience of one's thoughts occurring rapidly, each thought being associated with a wider range of consequent ideas than normal and with inability to remain on one idea for any length of time. Occurs in manic illness. And the speech is called "pressured (or pressure of speech)".
3. Disorders of mood: it can be normal or depressed or euphoric. Depressed in depression and euphoric (or called elated) in mania. Sometimes there is what is called as restricted, or blunted affect, which means a reduction in the intensity of emotions and it occurs in schizophrenia and in depression. In

severe forms of blunted affect, the affect is called flat "flat affect". The affect is also can be described as appropriate, or inappropriate. Inappropriate affect means that it does not goes with the idea being discussed or with the situation (e.g. laughing when talking about the suicidal attempt). Inappropriate affect occurs in schizophrenia.

4. Other common signs and symptoms:
 - a) Psychomotor retardation: this is characterized by slowing of thought and activity. This occurs in depression and is one of the criteria of it.
 - b) Psychomotor agitation: characterized by a dysphoric restlessness of speech and motor behavior. This is also a criterion of depression.
 - c) Stereotypies: repeated, purposeless, and sometimes bizarre movements. It occurs in schizophrenia, mental retardation, and in autism.
 - d) Catatonic symptoms: catatonia is defined as an increase in resting muscle tone to distinguish it from rigidity. One of the catatonic symptoms is posturing which is characterised by taking a posture (sometimes bizarre posture) and maintaining it for minutes. It occurs I schizophrenia and in depression. Another catatonic feature is negativism which is resistance to requests and commands. And this occurs in chronic schizophrenia. Some catatonic patients are totally immobile "stupor" and this occurs in schizophrenia and depression. All catatonic features respond well to electroconvulsive therapy (ECT).
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History and Metal Status Examination (MSE):

History:

1. Name, age, and marital status. Current occupation. Route of referral.
2. Chief complaints
3. History of presenting complaints
4. Past psychiatric and medical history
5. Drug history
6. Family history
7. Personal history: Birth, Childhood, School, Work, Marriage.
8. Forensic Hx.
9. Social background information
10. Premorbid personality

Mental Status Examination (MSE):

1. Appearance: Style of dress. Level of cleanliness. General physical condition.
 2. Behaviour: Appropriateness of behaviour. Level of motor activity. Apparent level of anxiety. Eye contact. Rapport. Abnormal movement or posture. Episodes of aggression.
 3. Speech: Volume, rate, and tone. Quantity and fluency. Abnormal associations, clang and punning. Flight of ideas.
 4. Mood: Subjective and objective assessment of mood.
 5. Perception: Hallucinations or illusions.
 6. Thought Form: formal thought disorder.
 7. Thought Content: delusions, obsessions, suicidal and homicidal intents.
 8. Cognition: Orientation. Attention and Concentration. Short-term and long term memory.
 9. Insight: Does the patient feel his experiences are as the result of illness? Will he accept medical advice and treatment?
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ANXIETY DISORDERS

DSM-5 (Diagnostic and Statistical Manual) classification:

1. Panic disorder
2. Phobias
3. Generalized Anxiety Disorder (GAD)
4. Separation anxiety disorder
5. Selective mutism

These two entities are usually discussed in child psychiatry because they occur usually in children

Risk Factors/Etiology

- Psychodynamic Theory: anxiety occurs when instinctual drives are not expressed, that is to say: repressed.
- Behavioral Theory: anxiety is a conditioned response to environmental stimuli, originally paired with a feared situation. Most common example is the phobias, and their best treatment is: behavioral therapy.
- Biological Theory: various neurotransmitters and various CNS structures are involved, such as norepinephrine (NE), serotonin (5-HT), and GABA. Brain areas involved include the locus cerelus and raphe nucleus.

Anxiety disorders are the most common psychiatric disorders. The Iraqi Mental Health Survey (IMHS) which was done in all the 18 governorates with a sample size of more than 1000 cases estimated the lifetime prevalence of all anxiety disorders to be about 10% ⁽¹⁾. They are often chronic and resistant to treatment.

Female to male ratio is 2:1 in almost all anxiety disorders.

PANIC DISORDER

- A classic example of panic disorder would be a female who repeatedly visits the emergency room with episodes of racing heart, sweating, shortness of breath, and a fear of "going crazy" or of dying.
- Definition: Recurrent unexpected panic attacks are present. These typically occur out of the blue and cause intense distress to the patient.
- Panic attacks include intense anxiety often marked with physical symptoms: Palpitations, Abdominal distress, Numbness, Nausea, Intense fear of death, Choking, Chills, Chest pain, Sweating, Shaking, and Shortness of breath. Panic attacks can occur in mental disorders other than panic disorder, particularly specific phobia, social phobia, and PTSD.
- Agoraphobia can occur as a complication of panic disorder.
- In Iraq most patients with panic attacks will consult an emergency unit frightened and sometimes we give them the wrong diagnosis of "Hysteria"

abbreviated as HYS and generally will be neglected. They usually consult a specialist cardiologist, and if they will consult a psychiatrist, that would be the last thing to do. It is sometimes important to consult a cardiologist since paroxysmal supraventricular tachycardia may resemble panic disorder, while patients with panic disorders have normal ECG, in spite of ectopic beats ⁽²⁾.

Risk Factors/ Etiology

- Separation during childhood
- "Panicogens": these are substances that if given to a normal person do not cause panic attack but when given to panic disorder patient causes panic attack and they include: lactate, flumazenil, epinephrine, CO₂, and others).
- Genetic components. Many studies confirm this including a study done in Iraq where the prevalence of panic disorder in first degree relatives of patients with panic disorder was found to be 17.3% while in the control its prevalence was 3.1% ⁽³⁾.

Prevalence:

In the USA the lifetime prevalence is 1-4 %. Mean age of patients is 25 years. In the Iraqi study mentioned above it was found to occur with female to male ratio of 2:1; and that most patients were married and living in urban areas and were of good educational status ⁽³⁾. These finding goes well with other studies done outside Iraq. In the Iraqi Mental Health Survey (IMHS) the life time prevalence of panic disorder was found to be 0.6% with female to male ration 2-3:1 ⁽¹⁾.

DSM 5 diagnostic criteria of panic disorder:

- A. Recurrent unexpected panic attacks
- B. At least one of the attacks has been followed by 1 month (or more) of one or both of the following:
 1. Persistent concern or worry about additional panic attacks or their consequences (e.g., losing control, having a heart attack, going crazy).
 2. Significant maladaptive change in behavior related to the attacks (e.g., behaviors designed to avoid having panic attacks, such as avoidance of exercise or unfamiliar situations).
- C. The Panic Attacks are not restricted to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism, cardiopulmonary disorders).
- D. The Panic Attacks are not restricted to the symptoms of another mental disorder, such as Social Phobia (e.g., in response to feared social situations), Specific Phobia (e.g., in response to a circumscribed phobic object or situation), Obsessive-Compulsive Disorder (e.g., in response to dirt in someone with an obsession about contamination), Posttraumatic Stress Disorder (e.g., in response to stimuli associated with a traumatic event), or Separation Anxiety Disorder (e.g., in response to being away from home or close relatives).

DDx.:

1. Cardiovascular: anemia, mitral valve prolapse, angina, paroxysmal supraventricular tachycardia others.
2. Respiratory: asthma, pulmonary embolism, others.
3. Neurological: epilepsy, TIA, MS, others.

4. Endocrine: hyperthyroidism, menopausal disorders, hypoparathyroidism, hypoglycemia and others.
5. Drug intoxications or withdrawal.
6. Others: anaphylaxis, electrolyte disturbance, uremia, and others.
7. Other mental disorders: specific phobia, social phobia, PTSD, and others.

Treatment:

Alprazolam (a benzodiazepine (BNZ.)) and paroxetine (an SSRI) are FDA approved. Taper the dose of BNZ. in about 3-4 weeks because at that time the SSRI starts to work, and continue SSRIs for about 1 year once they are effective. Several studies and reports have found that the combination of CBT with pharmacotherapy is more effective than either approach alone. Systemic desensitization for agoraphobic symptoms if associated.

PHOBIC DISORDER

- Irrational fear and avoidance of objects and situations.
- When confronted with the feared object, patients typically experience anxiety, with activation of sympathetic nervous system, except in blood-injection-injury phobia (BII phobia) when there is activation of parasympathetic system.
- Agoraphobia is fear or avoidance of places from which escape would be difficult in the event of panic symptoms.
- Specific phobia: is fear or avoidance of objects or situations other than agoraphobia or social phobia. The IMHS found the lifetime prevalence of specific phobia to be about 5% of the general population ⁽¹⁾. All are more common in female but BII phobia might be present equally in both sexes.
- Social phobia: fear of humiliation or embarrassment in either general or specific social situations. In an Iraqi study on the prevalence of social phobia among a big sample secondary school students (1080 persons) in Baghdad it was found to be of 1.67% with female to male ration 3.5:1 ⁽⁴⁾. The IMHS found the lifetime prevalence of social phobia to be about 1% of the general population ⁽¹⁾.

Treatment:

CBT which include systematic desensitization.

Systematic Desensitization: Anxiety and relaxation are physiologically opposite. Purpose of therapy is to replace anxiety with relaxation. Begin with low levels of anxiety. Use relaxation techniques.

E.g. Fear of Heights: ask the patient to make a list of his fears, e.g.:

1. Thinking of a tall building, 2. Seeing a picture of a tall building, 3. Standing outside a tall building.... Etc... we start the desensitization with the 1, till the patient is no more afraid of it, then goes to 2 and etc..
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Pharmacotherapy (especially for social phobia): SSRIs, Buspirone, or Beta-blockers (particularly for stage **ساحة المسرح** fright. Stage fright occurs when those who need to talk to a public. Sometimes they regard it as part of social phobia).

GENERALIZED ANXIETY DISORDER

Definition: excessive, poorly controlled anxiety about life circumstances that continues for longer than 6 months. There are psychological and physiological symptoms.

DSM-5 criteria for GAD:

1. Excessive anxiety or worry, occurring most of the days at least for 6 months.
2. Difficulty controlling worry.
3. Associated with three of the following six symptoms: **Muscle tension, Fatigue, Concentration difficulty, Restlessness or feeling on edge, Irritability, and Sleep disturbance.** (Mnemonic: **Macbeth Frets** **يقلق** **Constantly Regarding Illicit محظور Sins**)

Risk Factors / Etiology: Genetic predisposition for anxiety trait.

Presenting Symptoms:

- Prevalence: 5% of the population. Occurs at a 2:3 male-to-female ratio.
- Course: chronic, symptoms worsen with stress.
- Associated problems: depression, somatic symptoms, and substance abuse.

Treatment

- Behavioral psychotherapy: relaxation training, and biofeedback.
- Pharmacotherapy: Venlafaxine, other antidepressants, buspirone, benzodiazepines. (Buspirone is better than benzodiazepines). (SSRIs are better than Buspirone). The choice is dependent on response and on the individual.

References: Kaplan Lectures from youtube.com &:

1. The Iraqi Mental Health Survey (IMHS) done by the Ministry of Health in collaboration with the World Health Organization (WHO) in 2006-2007
2. Hmood A. R., Al-Badri S. A., Al-Dabbagh L. A. (2014) Electrocardiography (Holter) study of patients with panic attacks . Karbala J. Med. Vol.7, No.2
3. Numan S. Ali, Hayder Abdulmhsin (2006) A Family Study of Panic Disorder in Iraq. THE ARAB JOURNAL OF PSYCHIATRY. No.12, Autumn
4. Basheer Fadel Homady Al-Mashedany (2004)Prevalence Study of Social Phobia Amon Secondary School Students in Baghdad. A non-published thesis.

MOOD DISORDERS: DEPRESSIVE DISORDER (UNIPOLAR DEPRESSION) part 1

Case 1: a 40-year-old woman presented to her GP complaining of feeling tired and “washed-out” منتهية. She has had difficulty getting off to sleep for about 4 weeks, but has felt restless during the day. Straightforward, everyday tasks have become a challenge and sometimes provoke a dry mouth and churning تقلب stomach, but she occasionally feels tearful. The GP is aware that the woman’s mother died 3 months prior to the presentation. The patient describes no thoughts of self-harm.
(discuss: diagnosis and treatment)

Mood disorder is a term applied to a range of condition in which the most prominent symptom is elevation or depression of mood. All of us can be sad or happy for a while. Mood can show extreme manifestations, like other natural biological phenomena such as the level of blood pressure or blood sugar.

The mood, like blood pressure, is regarded disordered and need treatment when it is beyond control, prolonged, causes functional disturbance, and can be treated.

Untreated depression can lead to personal, familial, and social disasters. Living close to a depressed person can be one of the most traumatic experiences threatening infants and young children.

CONCEPT

Before 20th century:

- All mental illnesses were considered one condition.
- Melancholia (Black Bile): theories with no evidence about depression.

20^h century:

- Kraepelin--- differentiated two types of insanity, 1. Deteriorating (Dementia Praecox=Schizophrenia) and 2. Periodic (Manic Depressive Insanity).
 - Freud: psychological explanation of depression (functional disorder). At that time no organic lesions were found in the brain of depressed patients, hence the disorder was said to be *functional*, i.e. problem in the function, not in the structure.
 - In the 1960s: Reactive Depression Vs. Endogenous Depression.
 - Isoniazid (INH) was the first drug to be called as an antidepressant (Reactive and Endogenous types both respond to antidepressants)--- biological explanation of depression.
 - Pharmaceutical companies, driven by profit rather than by science, exaggerated the benefits of medications (medicalization of loneliness, relationship difficulties, day-to-day stress, etc.) and this led to over-prescription of antidepressants in the world while still those with severe depression (e.g. melancholic) do not receive treatment.
 - New concepts like PTSD, adjustment disorder, dysthymia are found not responsive to antidepressants like severe (melancholic) or psychotic major depressive disorder.
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EPIDEMIOLOGY

Life time prevalence= 5-10% (some studies found it as low as 1% and others as high as 30%). The Iraqi Mental Health Survey (IMHS) found lifetime prevalence of depression in males around 5% and in females around 10%. The prevalence rate of depression is not fixed between studies.

Sex ratio male to female = 1:2

First episode typically in mid-20s but can occur at any age.

ETIOLOGY

There are predisposing, precipitating, and perpetuating factors.

- Genetic: Heritability estimates range from 40-70% and families also have high rates of anxiety disorders and neuroticism. Prevalence in first degree is higher than general population, concordance rate is higher in the MZ than in the DZ twins.
- Childhood experiences: Loss of a parent, lack of parental care, parental alcoholism / antisocial traits, childhood sexual abuse.
- Personality traits: Neuroticism / anxiety, impulsivity, obsessionality.
- Social circumstances:
 - Marital status: low rates associated with marriage, high rates with separation or divorce.
 - It was found that, for women, having 3 or more children under the age of 11, lack of paid employment, and lack of a confiding relationship were associated with increased risk of depression (recent studies support the lack of a confiding relationship, but not the other factors).
 - Adverse life events: particularly “loss” events (increased risk 2-3 months after event) in vulnerable individuals.
- Physical illness: Especially if chronic, severe, or painful. Neurological disorders (e.g. Parkinson's disease, MS, stroke, epilepsy) have higher risk (perhaps due to “shared” pathology). Higher rates also noted in post-MI, diabetic, and cancer patients, although family or personal history of depression are important determinants of occurrence.

Monoamine theory: depression is caused by decrease concentration of monoamines (i.e. Serotonin, Noradrenalin, and Dopamine) in the brain. The theory is supported by the mechanism of action of antidepressant drugs, and by the finding of low 5-HIAA (a metabolite of serotonin) in CSF.

Disturbance in neuroendocrine function: high CSF levels of CRF (Corticotropin-Releasing Factor).

Other findings and theories: e.g. Changes in sleep pattern Reduced total SWS and shortened REM latency (secondary to increased cholinergic and/or reduced serotonergic/ noradrenergic drive. hypoperfusion in some parts of the brain in some of the cases, and many psychological theories (one of the most important psychological theories is the cognitive theory which stresses on the thinking errors on which is based a type of therapy called: Cognitive Behavioral Therapy CBT).

Diagnostic Criteria

DSM-IV criteria of Major Depressive Disorder:

Four of these eight with depressed mood or anhedonia for 2 weeks= major depressive disorder

Mnemonic: SIGECAPS: 1. Sleep changes (typically decrease), 2. Interest (Anhedonia=no interest), 3. Guilt, 4. Energy (decrease), 5. Concentration (decrease), 6. Appetite and weight changes (typically decrease), 7. Psychomotor changes (retardation or agitation), and 8. Suicidal ideation and/or attempts.

N.B. in every diagnostic criteria in psychiatry add these two points at the end: (i) not caused by the direct physiological effect of a substance (e.g. drug or alcohol) or a general medical condition; (ii) causes significant distress or impairment of function.

Subtypes (there are different classifications but can be summarized as follows):

- Non-melancholic or called "without somatic symptoms". Essentially, defined as absence of psychotic or marked somatic symptoms. Previously known as neurotic depression or reactive depression. Life events appear to be provoking factors, but only in those with a predisposition to depression, and treatment should focus on the underlying disorder as well as managing any significant provoking factors. Onset at any age.
 - Major Depressive Disorder (MDD) with melancholic features, or called "with somatic symptoms". There are somatic symptoms: early morning wakening, diurnal variation of mood, significant weight loss, reduced libido, amenorrhoea, constipation and psychomotor retardation. The presence of somatic symptoms defines what is regarded as a more "biological" or "endogenous" depressive episode, which is more severe (and more responsive to antidepressant treatment). Starts in 5th decade or later. Usually there is no precipitating stress.
 - Dysthymia : Less severe, but more chronic than depression (2-20yrs, median 5yrs). Also called Neurotic Depression. Starts in 2nd and 3rd decade. Poor response to medication.
 - MDD with catatonic features: there is marked psychomotor disturbance which can manifest as one or few of the following: (immobility, mutism, peculiar movements, excessive movements, echolalia or echopraxia). This subtype is especially responsive to ECT and benzodiazepine (especially lorazepam).
 - MDD with psychotic symptoms (mood congruent) (Delusions: e.g. nihilistic *عدمية*, hallucinations: e.g. derogatory *إذرائية* auditory or olfactory of bad smell, and catatonia)
 - Postnatal depression
 - Premenstrual dysphoric disorder
 - MDD with atypical features (Atypical depression): Hypersomnia, hyperphagia. Best treatment: phenelzine.
 - Seasonal affective disorder (SAD): also called "winter depression". Treatment: Light therapy (drugs also effective).
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Clinical Features

Patients may describe their mood as depressed, sad, or irritable. Anhedonia indicates an inability to take pleasure in formerly pleasurable activities, associated with lack of interest. In addition to other symptoms such as loss of energy and fatigue, difficulty in concentration which appears when the patient cannot read or follow a conversation or count money, sometimes so severe that it resembles dementia and called *pseudodementia*. Appetite and weight are often lost; however at times these may increase. Loss of appetite is sometimes so severe to a degree that threatens life and hospital admission is indicated as an emergency. Insomnia may be initial (trouble falling asleep), middle (awakening in the middle of the night and having trouble getting back to sleep), or terminal (awakening early and being unable to get back to sleep); in a minority, patients may become hypersomnic and experience an increased need for sleep, sometimes sleeping 12 or 16 h a day. Psychomotor change: either agitation or retardation (psychomotor retardation= slow movements). Suicide: may be a death wish (I wish that I die), or may put a plan to kill the self (e.g. buying a poison and hiding it and preparing for the death by paying the debts and making apologies in advance, and maybe writing a letter), suicidal attempt means a genuine trial to end the life (to be differentiated by attention seeking behavior by history, for example in the genuine suicidal attempt the patient take caution not to be saved (e.g. waiting everybody to go out from the home, and lock the door on the self) and the method used is believed to be highly fatal by the patient (e.g. taking 3 sheets or more of a medication). Psychotic symptoms occur in some patients but they are mood-congruent. Bizarre delusions do not occur. Occasionally, the depressive episode will evolve into a catatonic stupor.

In mental retardation and in elderly with dementia depression presents with the somatic symptoms and here it is not melancholic but is called “masked depression.”

Transcultural factors: while somatic features are found in all societies, they are more frequent & prominent in non-western cultures. However, it is necessary to distinguish between somatization and somatic metaphors *مجاز* for an emotional state e.g. Iraqis tend to use expressions such as “hemmed in *حصرة*”, or “pressure in the chest” to express emotional suffering.

In MSE (mental status examination):

Appearance: downturned eyes, sagging corners of the mouth, vertical furrows between the eyebrows, poor eye contact, weight loss (sagging clothes), dehydration, unkempt, poor personal hygiene.

Behavior: psychomotor retardation typically occurs.

Speech: slow, long delay before answering questions.

Mood: low and sad, hopeless, future seems bleak. Sometimes anhedonia. Anxiety and irritability can occur.

Thought form: normal.

Thought speed: slow.

Thought content: pessimistic thoughts, suicidal &/or homicidal thoughts. Sometimes in psychotic depression there are mood congruent delusions like delusion of poverty, delusion of illness.

Perception: mood congruent auditory hallucinations e.g. “you should die.”

Cognition: poor attention, concentration, and memory (pseudodementia).

Co-morbidity

There is increased risk of anxiety disorders and substance abuse.

Differential diagnosis

- Other psychiatric disorders: Stress-related disorders (adjustment disorders/bereavement, PTSD), bipolar disorder.
- Neurological disorders: Dementia, Parkinson's disease, Others.
- Endocrine disorders: hypothyroidism, others.
- Metabolic disorders: hypercalcaemia, porphyria.
- Haematological disorders: Anaemia.
- Inflammatory conditions: SLE.
- Infections: Syphilis, Lyme disease, and HIV encephalopathy.
- Sleep disorders: especially sleep apnoea.
- Medication-related e.g. antihypertensives (beta-blockers, methyl dopa); steroids; interferon, and psychiatric medication (esp. antipsychotics)
- Substance misuse, e.g. alcohol, benzodiazepines, opiates, marijuana.

Answer to Case 1:

Dx. Preferred diagnosis: mild depressive episode. Alternative dx.: adjustment disorder/ bereavement, generalized anxiety disorder, physical problem (hypothyroidism, anemia, diabetes), and drug or alcohol misuse.

Treatment: no indication for admission. No role of antidepressants. Short-term course of hypnotics may help. Reassurance, supportive and educative psychotherapy.

REFERENCES

Bazzoui, W. (1970) Affective Disorders in Iraq. *Brit. J. Psych.*, 117, 195-203

Clark, T., Day, E., & Fergusson, E. C. (2005) *Core Clinical Cases in Psychiatry*. Hodder Arnold

Gelder, M., Harrison, P., Cowen, P. (2006) *Shorter Oxford Textbook of Psychiatry*. 5th Ed. Oxford University Press.

Iraqi Mental Health Survey (IMHS) done by the Ministry of Health in collaboration with the World Health Organization (WHO) in 2006-2007

Jacob, K. S. (2009) Major Depression: Revisiting the Concept and Diagnosis. *Advances in Psychiatric Treatment*. Vol. 15 279-285

Moore, D. P. (2006) *The Little Black Book of Psychiatry*. 3rd Ed. Jones and Bartlett Publishers.

Sadock, B. J., Sadock, V. A., (2014) *Synopsis of Psychiatry*. 11th Ed. Lippincott William & Wilkins

Mood Disorders (Part 2)

Case 2: a 79-year-old man is brought to the emergency department by his family for being mute since 2 days. The family tells you that since 3 weeks the patient has had frequent crying episodes and complained of a decrease in energy. He has lost at least 6 kilograms in the 3 weeks and for the past 2 days has refused to eat anything at all. Three days ago the patient told his family that he was “sorry for all the pain and suffering I have caused you” and that “it would be better if I were not around any more.” The patient has hypertension and he is on treatment.

Discuss: more history taking, physical exam., dx., ddx., tr., prognosis.

=====

Investigations:

There are no specific tests for depression. Investigations focus on the exclusion of treatable causes (see above), or other secondary problems (e.g. loss of appetite, alcohol misuse).

- Standard tests FBC, ESR, B₁₂/folate, U&Es, LFTs, TFTs, glucose, Ca²⁺
- Focused investigations (if indicated by history or physical signs):
 - CT/MRI, EEG, LP (VDRL, Lyme antibody, cell count, chemistry, protein electrophoresis)
 - Dexamethasone suppression test (Cushing's disease)
 - ACTH stimulation test (Addison's disease)
 - Urine toxicology (to diagnose drug abuse like Cannabis or Opiates)
 - Antinuclear antibody
 - Syphilis serology
 - HIV testing

Course and prognosis:

- Duration of one episode is usually: 6 mths – one year
- The majority will have recurrence.
- Suicide attempts are common but completed suicide is seen in about 4%.
- Death rate is higher than the general population is due to the neglect of health and due to suicide.

Management and treatment

Initial assessment

- History and MSE (MSE= Mental State Examination) to search for the symptoms.
- Physical examination: to exclude the differential diagnoses.
- Baseline investigations.

Hospital admission

1. Risk of suicide
2. Risk of harm to others

3. Significant self-neglect (esp. weight loss)
4. Psychotic symptoms
5. Initiation of ECT
6. Lack of social supports

Treating depressive illness

Antidepressant drugs are effective in around 65% of patients. Mild depression tends to improve on placebo so that the difference between antidepressant use and placebo effect is very small, or at times, absent. Severe depression (e.g. melancholic) do not improve on placebo and the response to the drugs is better than in the mild forms. All antidepressant drugs have a delayed effect. They take about two weeks to start to show the benefit. We must tell the patient about this delay and about the need to continue taking medication. No antidepressant is more efficacious or faster to act than another.

For mild- moderate episodes or where antidepressants are contraindicated (e.g. recent MI) Cognitive Behavioral Therapy (CBT) or other psychotherapies are indicated. CBT is time-limited, and structured. Dysfunctional thought patterns are modified through verbal and action-oriented procedures.

CBT or other psychotherapy are not effective alone in severe or psychotic depression. The combination of psychological approaches and pharmacotherapy may be synergistic, but in severe cases treatment is almost exclusively pharmacological or physical (e.g. ECT).

In depression with psychotic features ECT is first choice and we must add to the antidepressants treatment an antipsychotic . In depression with catatonic features ECT and benzodiazepines are first choice.

Choosing an antidepressant

The decision about which antidepressant to choose will depend upon:

- Patient factors: Age, sex, comorbid physical illness (cardiac, renal, liver, neurological), previous response to antidepressants.
- Symptomatology: Sedative agent for insomniac patients, lack of energy/hypersomnia (more adrenergic/stimulatory agent), OCD symptoms (clomipramine/SSRI), risk of suicide (avoid TCAs).

Adequate trial

Generally an adequate trial of an antidepressant is defined as at least 6 wks of the highest tolerated dose (up to BNF maximum).

If there are intolerable side effects, switch to another antidepressant.

Maintenance therapy: continue the effective treatment for 6 mths to 1 yr after remission in first episode and for at least 5 yrs in recurrent episodes.

New therapies under research: vagal nerve stimulation, transcranial magnetic stimulation.

Mood Disorders: Bipolar Disorder

Concept

- Before 20th century all mental illnesses were regarded as one condition.
- Kraepelin--- differentiated two types of insanity, 1. Deteriorating (Dementia Praecox=Schizophrenia) and 2. Periodic (Manic-Depressive Insanity).
- Treponema pallidum was identified and syphilis discovered
- Treponema pallidum was found in the CSF of some of the patients who have manic-like symptoms (biological explanation became more accepted)
- Lithium discovered to have anti-manic properties (the fact that a drug treat mania only, but not schizophrenia or major depression, means that mania is a separate illness).

Many creative people were found to have bipolar disorder and spoke publically about it to decrease the stigma and to educate the people about it.

Clinical Features:

Classically, periods of prolonged and profound depression alternate with periods of excessive elevated and/or irritable mood, known as mania. Between these highs (mania) and lows (depression), patients usually experience periods of full remission.

The symptoms of mania: characteristically include a decreased need to sleep (feels rested after only 3 hours of sleep), flight of ideas (subjective feeling that the thoughts are racing), pressured speech (the patient doesn't stay in the same subject but jump from subject to another, sometimes with clang association which also occur in schizophrenia), increased activity (sometimes this activity is beyond the body limit: example a manic patient walks in the summer under the sun for many hours till he develop hypotension, feet ulcers and fainting), indiscriminate **غير مميّز، غير مقيد** behavior without regard for consequences (e.g. buying many useless things that are beyond the patients financial abilities, they usually buy vividly colored clothes or fancy cars, or many fancy electric devices not needed like e.g. a woman buying five refrigerators at the same time, or a young man buying ten fancy high priced mobile phones, inappropriate sexual behavior and disinhibition is common), grandiosity (in grandiosity there is inflated self esteem and this can reach a delusional degree like for example when the patient believes that he has special powers e.g. healing powers, or the belief that he can fly and he may jump from a high building), and distractibility (i.e. attention too easily drawn to unimportant or irrelevant external stimuli). In severe cases there may be severe thought disturbance and even psychotic symptoms.

Types:

1. Bipolar I: manic episodes and depressive episode, or manic episodes only.
2. Bipolar II: hypomanic episodes and depressive episodes.
3. Cyclothymia: less severe, more chronic.

Diagnostic criteria of mania (DSM-IV criteria):

Elevated mood with 3 or more of these 7 for one week

The mnemonic: DIGFAST

1. Distractibility
2. Indiscretion طيش or Inhibition lost
3. Grandiosity
4. Flight of Ideas
5. Activity increased
6. Sleep decreased
7. Talkativeness

N.B. in every diagnostic criteria in psychiatry add these two points at the end: (i) not caused by the direct physiological effect of a substance (e.g. drug or alcohol) or a general medical condition; (ii) causes significant distress or impairment of function.

Diagnostic criteria of hypomania is the same of the criteria of mania but not severe enough to interfere with social or occupational functioning, do not require admission to the hospital, and do not include psychotic symptoms.

Epidemiology :

Lifetime prevalence 1%

No sex difference

Age: mean 21yrs.

Aetiology

Genetic 1st-degree relatives are 7x more likely to develop the condition than general population.

Children of a parent with bipolar disorder have an increased chance of developing a psychiatric disorder (genetic liability appears shared for schizophrenia, schizoaffective, and bipolar affective disorder).

MZ concordance rate is higher than DZ concordance rate.

Neurotransmitters NA, DA, 5HT, and glutamine have all been implicated.

Differential diagnosis

- Schizophrenia, schizoaffective disorder, delusional disorder, other psychotic disorders
- ADHD/conduct disorder
- Alcohol or drug misuse (e.g. stimulants, hallucinogens, opiates)
- Physical illness (e.g. hyper/hypothyroidism, Cushing's syndrome, SLE, MS, head injury, brain tumors, epilepsy, HIV and other encephalopathies, neurosyphilis)
- Other antidepressant treatment or drug-related causes

Investigations: as for depression

Course and prognosis

There is often a 5-10yr interval between age at onset of illness and age at first treatment or first admission to hospital. Untreated patients may have more than 10 episodes in a lifetime, and that the duration and period of time between episodes stabilises after the 4th or 5th episode.

Morbidity/mortality (complications)

Morbidity and mortality rates are high, in terms of lost work, lost productivity, effects on marriage (increased divorce rates) and the family, with completed suicide in 10%.

Management and treatment

Initial assessment

- History and MSE (MSE= Mental State Examination) to search for the symptoms.
- Physical examination: to exclude the differential diagnoses.
- Baseline investigations.

Acute episodes

Hospital admission

Frequently acute episodes of bipolar disorder are severe enough to require hospital admission (often on a compulsory basis).

Treatment of acute manic episodes

First-line treatment

1. Lithium remains the first-line treatment for acute mania, with a response rate of around 80%. Note: Up to 2 weeks of treatment may be necessary to reach maximal effectiveness for manic patients. Due to this delayed effect addition of an antipsychotic or a benzodiazepine is usually required.
2. Antipsychotics (e.g. haloperidol, chlorpromazine) are useful in the rapid control of severely agitated or psychotic patients with bipolar disorder. Despite widespread use, the high frequency of EPSEs has led to caution, particularly because of the risk of TD with long-term treatment, hence "novel" antipsychotics have been advocated and evidence is accumulating for treating acute mania with olanzapine, risperidone, or clozapine.
3. Benzodiazepines: another approach to reduce the need for antipsychotics is the adjunctive use of benzodiazepines. Clonazepam and lorazepam are the most widely studied compounds.

The fact that lorazepam is well absorbed after intra-muscular injection (unlike other benzodiazepines) has made it particularly useful for some very agitated patients.

4. ECT has been shown to be one of the best treatment options in acute mania. Current practice reserves ECT for clinical situations where pharmacological treatments may not be possible, such as pregnancy or severe cardiac disease, or when the patient's illness is refractory to drug treatments.

Second-line (Anticonvulsants)

1. Carbamazepine or its derivative, oxcarbazepine, may be effective, either alone or in combination with lithium or antipsychotics.
2. Valproate may also be effective.
3. Lamotrigine is proved to help the depression in bipolar patients.
4. Topiramate has shown some promise in both depressed and manic bipolar patients, with the added benefit of promoting weight loss.
5. No current evidence for gabapentin.

Treatment of depressive episodes

Same as treatment of depressive disorders but the response rate will be lower to antidepressants and we may need to use lithium or mood stabilisers, and there is a risk of switching to mania. Recent evidence suggests monotherapy with lamotrigine may have utility in the treatment of refractory bipolar depression.

Prophylaxis (Maintenance Treatment)

Indications: any patient who has had at least 2 episodes in 5 years.

First-line treatment: lithium remains the first-line choice.

Second-line treatments:

Carbamazepine appears to be effective in the long-term treatment of bipolar disorder, with an overall response rate of 63%.

Sodium valproate/divalproex, is another choice.

No evidence for gabapentin, topiramate, or lamotrigine use in prophylaxis.

Psychotherapeutic interventions

These should not be used alone, they are an addition to the treatment and include many types of psychotherapy like CBT, and group therapy.

Support groups: groups of patients and/or their families and/or doctors and nurses and other volunteers. These may provide useful information about bipolar disorder and its treatment. Patients may benefit from hearing the experiences of others, struggling with similar issues. This may help them to see their problems as not being unique, understand the need for medication, and access advice and assistance with other practical issues.

Case Answer:

History taking: any stressor? Neurological causes of mutism (aphasia?) (CVA?)
suicide in more detail? psychotic symptoms? Which kind of antihypertensive drug?
Previous hx. of similar condition? Previous hx. of mania? Family hx.?

Physical exam.: neurological exam. for CVA, thyroid

Dx. major depressive disorder (MDD)

Ddx.: MDD with psychotic features, Bipolar disorder, Conversion disorder

Tr. Admission to the psychiatric unit, ECT is of first choice with antidepressant drugs

Prognosis: poor since he is male and old. Suicide risk must be assessed seriously.

References: same as those for depressive disorder (part 1)

18th Oct. 2015 5th year medical
college Al-Mustansiriya
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5. Stress and Attachment

Stress refers to experiencing events that are perceived as endangering one's physical or psychological wellbeing. The cause of stress can be from outside of us (traumatic events: war, killing, sexual abuse, verbal abuse, etc..) or from inside of us (our internal conflicts: e.g. envy, jealousy, hatred, love, etc..). Some positive events also cause stress: e.g. marriage, having a new child, having a new work, having a car etc... Stress increases the release of adrenocorticotrophic hormone (ACTH), which leads to the release of cortisol, activation of the autonomic nervous system, and altered levels of neurotransmitters (e.g., serotonin, norepinephrine).

The Social Readjustment Rating Scale by Holmes and Rahe (which also includes "positive" events like holidays) ranks the effects of life events. Events with the highest scores require people to make the most social readjustment in their lives. The need for social readjustment is directly correlated with increased risk of medical

and psychiatric illness; in studies by Holmes and Rahe, 80% of patients with a score of 300 points in a given year became ill during the next year. الجدول التالي ليس للحفظ

Relative Stressfulness	Life Event (Exact Point Value of Stressor)
Very high	Death of a spouse (100) Divorce (73) Marital separation (65) Death of a close family member (63)
High	Major personal loss of health because of illness or injury (53) Marriage (50) Job loss (47) Retirement (45) Major loss of health of a close family member (44) Birth or adoption of a child (39)
Moderate	Assuming major debt (e.g., taking out a mortgage) (31) Promotion or demotion at work (29) Child leaving home (29)
Low	Changing residence (20) Vacation (15) Major holiday (12)

Stress is natural, we experience it for a reason. Usually short-lived and have benefits:

1. Make you active and alert.
2. Boost immune system and heal wounds (adrenaline and cortisol).

Chronic stress: higher rates of digestive, respiratory, circulatory, and infectious disease.

There is little or no evidence to support that stress:

- is a major cause of coronary artery disease (atherosclerosis) Davidson's p. 581
- causes hypertension. Davidson's P. 607

Nevertheless it seems that stress has some role in irritable bowel syndrome, fibromyalgia, and it may exacerbate psoriasis, and precipitate angina. And psychological stress is listed as a cause for delayed puberty and hyperprolactinemia.

Of course the word stress is used in medicine sometime not to describe psychological stress but to refer to:

- Severe physiological stress, e.g. burns, multi-organ failure
- Stress as in (Stress echocardiography) which refers to exercise or pharmacothcological stress.
- Oxidative stress.

Glucocorticoids are double edges swords:

Glucocorticoids mobilize energy (ex. By inhibiting glucose uptake) from body organs to the muscles, help you to survive stress. They help us not to lose energy during stressful time doing: digestion, growth, reproduction, building new tissues, etc. That would be helpful for short times but not for long times. Chronic high levels of glucocorticoids are found to cause dendritic atrophy, and interruption with long term potentiation. Estrogen is protective. There is what is called as (Steroid dementia syndrome) which occur in Cushing's disease.

Individual differences in responding to stressful life events:

Not all the people who face stressful events develop long chronic reactions. There are some factors that affect that which include:

- Personality style (type A behavior increase stress) People with type A behavior are extremely competitive and achievement oriented, they have a sense of time urgency finding difficult to relax and become impatient and angry when confronted with delays or with people whom they view as incompetent, they have self-doubt, and push themselves to accomplish more and more in less and less time.
- Cognitive appraisal of the stress. (Our explanation to what had happened affects our stress reaction).
- Social isolation increases stress.

ATTACHMENT AND DEVELOPMENT

Attachment can be defined as the emotional tone between children and their caregivers which starts since first month of age and it develops gradually.

Attachment theory originated in the work of John Bowlby, a British psychoanalyst (1907–1990). In his studies of infant attachment and separation, Bowlby pointed out that attachment is an essential medium of human interaction that had important consequences for later development and personality functioning.

The term *bonding* concerns the mother's feelings for her infant and differs from attachment.

Attachment is present as an instinct in animals, and there is a critical period for it early in the newborn's development.

Harry Harlow (1905-1981) studies the emotional and behavioral effects of isolating monkeys from birth and keeping them from forming attachments. The isolates were withdrawn, unable to relate to peers, unable to mate, and incapable of caring for their offspring.

In a series of experiments, Harlow separated rhesus monkeys from their mothers during their first weeks of life. During this time, the monkey infant depends on its mother for nourishment and protection, as well as for physical warmth and emotional security—contact comfort, as Harlow first termed it in 1958. Harlow substituted a surrogate mother made from wire or cloth for the real mother. The infants preferred the cloth-covered surrogate mother, which provided contact comfort, to the wire-covered surrogate, which provided food but no contact comfort.

Insecure Attachment

Mary Ainsworth (1913–1999) described three main types of insecure attachment: avoidant, ambivalent, and disorganized.

The **avoidant** child, due to aggressive parenting, tends to avoid close contact with people and lingers near caregivers rather than approaching them directly when faced with a threat.

The **ambivalent** child finds exploratory play difficult, even in the absence of danger, and clings to his or her inconsistent parents.

Disorganized children have parents who are emotionally absent with a parental history of abuse in their childhood. These children tend to behave in bizarre ways when threatened. According to Ainsworth, disorganization is a severe form of insecure attachment and a possible precursor of severe personality disorder and dissociative phenomena in adolescence and early adulthood.

Separation from mother for long periods can lead to: Failure-to-thrive syndromes, psychosocial dwarfism, separation anxiety disorder, avoidant personality disorder, depressive disorders, delinquency, academic problems, and borderline intelligence have been traced to negative attachment experiences.

What is a transitional object?

In childhood development, the term *transitional object* is used to refer to a physical object, which takes the place of the mother-child bond. Common examples include dolls, teddy bears or blankets. That object can give feeling of security to the child, and is usually used by the child during the period when the he is training to be separated from the mother and living independently.

NORMAL ANXIETY DURING DEVELOPMENT

Bowlby's theory of anxiety holds that a child's sense of distress during separation is perceived and experienced as anxiety and is the prototype of anxiety. Stranger anxiety, an anxiety response to someone other than the caregiver, appears at 8 months of age. Separation anxiety is the response of a child who is isolated or separated from its mother or caretaker. It is most common at 10 to 18 months of age and disappears generally by the end of the third year. When the mother is close to the child and the child experiences no fear, the child gains a sense of security, the opposite of anxiety. When the mother is unavailable to the infant because of physical absence (e.g., if the mother is in prison) or because of psychological impairment (e.g., severe depression), anxiety develops in the infant.

References:

Fadem, B. (2015) Behavioral Sciences 6th Edition

Davidson's principle and practice of medicine 22nd Ed.

Robert Sapolsky lecture at the NIH "Stress and Health: From Molecules to Societies"
2009 (from the youtube.com)

Trauma and Stressor-Related disorders:

1. Post-traumatic stress disorder (PTSD)
2. Acute stress disorder (ASD)
3. Adjustment disorder
4. Reactive attachment disorder
5. Disinhibited social engagement disorder

PTSD and ASD

In the DSM-IV, PTSD was regarded as one of the anxiety disorders. In DSM 5 it is classified under (Trauma and Stressor-Related disorders). ASD and PTSD are characterized by severe anxiety symptoms and follow a threatening event. The threatening event is not only threatening life, but also it can be about injury, or sexual violation. Natural disasters, accidents, being kidnapped, being diagnosed with a life-threatening illness. The threat can be direct, or occurred to a close person.

In ASD the anxiety lasts less than one month but more than 2 days, while in PTSD the anxiety lasts more than one month.

Etiology/ Risk factors:

Risk Factors are: substance abuse, personality disorder (borderline, paranoid, dependent, or antisocial), childhood trauma, being a female, inadequate support, external locus of control, etc.

Psychodynamic model of the PTSD hypothesizes that the trauma has reactivated a previously quiescent **ساکن، هادی**, yet unresolved psychological conflict. The revival of the childhood trauma results in regression and the use of the defense mechanisms of repression, denial, reaction formation, and undoing. Cognitive-Behavioral model of PTSD stresses the importance of avoidance, conditioning, and reinforces.

Biological Factors

The noradrenergic and endogenous opiate systems, as well as the HPA axis, are hyperactive in some patients with PTSD. Other major biological findings are increased activity and responsiveness of the autonomic nervous system, as evidenced by elevated heart rates and blood pressure readings and by abnormal sleep architecture (e.g., sleep fragmentation and increased sleep latency).

Prevalence:

The IMHS estimated the life time prevalence in Iraq to be 3.5% of the general population ⁽¹⁾. There are many other Iraqi studies on the prevalence of PTSD which

found higher prevalence (e.g. 13.4% in the Kurdish soldiers in Iraqi army ⁽²⁾, 48% in the casualty staff in Mosul city ⁽³⁾, and 25% in secondary school students in Baghdad⁽⁴⁾). The variability in these prevalence rates is due to the different methodology used by researchers: e.g. different sample size, or different diagnostic tools: some have used questionnaires rather than psychiatric interview). Same differences in point-prevalence rate occur in American studies about PTSD in US army in Iraq 2-20% of veterans ⁽⁵⁾.

PTSD presenting symptoms are four symptom groups:

- *Re-experiencing of the traumatic event* (nightmares, flashbacks).
- *Avoidance of stimuli associated with the trauma* (phobic avoidance)
- *Increased arousal*, such as increased anxiety, aggression, sleep disturbances, and Hypervigilance. reckless or self-destructive behavior
- *Negative thoughts and mood or feelings* — For example, feelings may vary from a persistent and distorted sense of blame of self or others, to estrangement from others or markedly diminished interest in activities, to an inability to remember key aspects of the event.

There are 2 subtype:

1. Preschool subtype (include similar criteria but some different details)
2. Dissociative subtype (include symptoms like: seeing the world unreal, dreamlike, detached from one's own body, mind, experience. etc.)

DIFFERENTIAL DIAGNOSIS

Treatable medical contributors to posttraumatic symptomatology (head injury, epilepsy, and substance-related disorders). Symptoms of PTSD can be difficult to distinguish from both panic disorder and GAD, because all three are associated with prominent anxiety and autonomic arousal. Borderline PD can be difficult to distinguish from PTSD. The two disorders can coexist or even be causally related.

Comorbidity:

Comorbidity rates are high among patients with PTSD, with about two thirds having at least two other disorders. Common comorbid conditions include depressive disorders, substance-related disorders, anxiety disorders, and bipolar disorders.

ASD and PTSD treatment:

Psychoeducation is an important first step in the treatment of ASD. There is some evidence that brief CBT, including exposure and cognitive challenging.

Pharmacotherapy is not generally recommended in ASD, but it is used in PTSD.

Recommended treatments for PTSD focus on **confronting the memories** and reminders of the traumatic event, as well as addressing associated unhelpful thoughts and beliefs. They include trauma-focussed cognitive behaviour therapy (TF-CBT)

which include exposure therapy (imaginary and in vivo) and eye movement desensitisation and reprocessing (EMDR).

Group psychotherapy with other survivors.

Pharmacotherapy: SSRIs (sertraline and paroxetine are FDA approved), Antidepressants, and Benzodiazepines (be aware of risk of abuse of benzodiazepines). Atypical antipsychotics have been used in this role but with limited research evidence base. Use of clonidine, prozosin, and propranolol, which are antiadrenergic agents, is suggested by the theories about noradrenergic hyperactivity in the disorder.

Onset and Course:

Symptoms usually begin immediately after the trauma, but can occur months or years later. Untreated, about 30 % of patients recover completely, 40 % continue to have mild symptoms, 20 % continue to have moderate symptoms, and 10 % remain unchanged or become worse. A good prognosis is predicted by the absence of the risk factors

Adjustment Disorders

These disorders represent a simple response to some type of life stress (whether traumatic or not). Usually the stressor less severe than PTSD. And the symptoms does not contain the four criteria of PTSD. There is no evidence that pharmacotherapy is helpful. The subtypes are: depressed mood, anxious symptoms, or disturbances in conduct.

Reactive Attachment Disorder

Due to insecure attachments, the child has a dampened **واهن، مثبط، خامد** positive affect — the child expresses joy or happiness in a very subdued **لطيف، خاضع** or restrained manner.

Disinhibited Social Engagement Disorder

It more closely resembles ADHD. It may occur in children who may have secure or insecure attachment. The child actively approached unfamiliar adults.

References:

1. Iraqi Mental Health Survey 2006-2007
2. Saman Anwar Faraj. Prevalence of PTSD among Kurdish soldiers in Iraqi army. 2008. A non-published thesis.
3. Ziyad Tariq Afram. PTSD among staff of casualty department in Mosul city. 2007. A non-published thesis.
4. Yousif Salim Alwan Al-Aubaidi. Prevalence of acute PTSD among secondary school students in Baghdad. 2005. A non-published thesis.
5. Lisa K. Richardson, B. Christopher Frueh, and Ronald Aciemo. Prevalence Estimates of Combat-Related PTSD: A Critical Review. Aust N Z Psychiatry. 2011 January 1.

*Overview of schizophrenia and other psychotic disorders***SCHIZOPHRENIA**

Schizophrenia is a thought disorder that impairs judgment, behavior, and the ability to interpret reality. Symptoms must be present for a period of at least 6 months to be able to make a diagnosis.

Risk Factors / Etiology

Male to female ratio of prevalence is 1:1. Men have an earlier onset, usually at 15 to 25 years of age, while women tend to have the onset at 25 to 35 years of age. Therefore, because men get the schizophrenia earlier, they got poorer prognosis than women.

There are many theories about the etiology. Schizophrenia has been associated with high levels of dopamine and abnormalities in serotonin. The new antipsychotic drugs "the atypical antipsychotics" are so effective in treating schizophrenia because they both help in reducing the level of dopamine and adjusting the level of serotonin.

Previously it was thought that the family is the cause of the patient's schizophrenia. If the mother gives mixed messages, it is called the "double-bind" or the "mixed-message" theory but this is an old theory which has no clear evidence.

There are families that are critical, intrusive, and hostile to the patient. They are called "high expressed emotion families." When this occurs, it has been linked to high rates of relapse.

Because there is an increase in the number of schizophrenics born in the winter and early spring, many believe it may be viral in origin.

Schizophrenia is more prevalent in low socioeconomic status (SES) groups, either as a result of downward drift (downward drift means= because of schizophrenia, the patient did not get job → low SES) or social causation (social causation means that low SES → schizophrenia).

Genetic causes of schizophrenia can be concluded from the prevalence of schizophrenia given in the table below:

General population	1%
Monozygotic twin	47%
Dizygotic Twin	12%
One schizophrenic parent	12%
Two schizophrenic parents	40%
First-degree relative	12%
Second-degree relative	5-6%

The greater the genetic linkage the greater is the risk of having schizophrenia.

Life events and schizophrenia:

Role of life events in schizophrenia was studied since long time and results are controversial. In Iraq, Al Maghazaji et al, calculated that 25% of patients presented psychosocial stresses as a cause of their illness. *Maghazaji, H. et al. (1978) Preliminary study of schizophrenia in Iraq. Journal of the faculty of medicine, Baghdad 20, 224-230*

Another Iraqi study found that schizophrenic patients reported nearly 3 times as many events as control. *Alhamzawi Ali 2002 Life Events and Age in Schizophrenia. Iraqi Journal of Community Medicine. April. Vol. 15 (2)*

Physical and Psychiatric Presenting Symptoms:

1. Hallucinations (mostly auditory: auditory in two-thirds of the patients, and visual in one third). There are some studies done in eastern countries (India & Pakistan for example) where visual hallucinations are found to be more common than it is in the western countries. Visual hallucinations alone are an indicator of organic cause (migraine, partial epilepsy, tumor in the visual cortex, Lewy-body Dementia, as well as schizophrenia).
2. Delusions (mostly bizarre)
3. Disorganized speech,
4. Disorganized behavior or Catatonic behavior
5. Negative symptoms
 - Usually experience social and or occupational dysfunction

The DSM-5 criteria to diagnose schizophrenia is 2 of the above 5 symptoms that continues for more than 6 months associated with social or occupational dysfunction.

- Physical exam usually unremarkable, but may find saccadic eye movements, Hypervigilance, etc.

Brain imaging findings

In Computed Tomography (CT): there is lateral and 3rd ventricular enlargement, and reduction in cortical volume (associated with the presence of negative symptoms, neuropsychiatric impairment, increased neurologic signs, and poor premorbid adjustment).

In Magnetic Resonance Imaging (MRI): enlarged cerebral ventricles.

Positron Emission Tomography (PET): hypoactivity of the frontal lobes and hyperactivity of the basal ganglia relative to the cerebral cortex.

Psychological tests:

1. IQ Tests: will score lower on all IQ tests, maybe due to low intelligence at the onset or to deterioration as a result of the disease. Many have significant cognitive decline during the course of the illness.
2. Neuropsychiatric Tests: results usually are consistent with bilateral frontal and temporal lobe dysfunction, including deficits in attention, retention time, and problem-solving ability.
3. Personality Tests: may give abnormal finding, such as bizarre ideations, etc.

Treatment:

- Hospitalization is usually recommended for either the stabilization or the safety of the patient.
- If you decide to use medications, atypical antipsychotic medications are most indicated to help control both positive and negative symptoms.
- If no response, consider using clozapine after other medications have failed.
- The suggested psychotherapy will be supportive psychotherapy with the primary aim of having the patient understand that the therapist is trustworthy and has an understanding of the patient, no matter how bizarre.

Differential Diagnosis:

1. Substance-induced: psychostimulants (like cocaine and amphetamine which both increase dopamine levels), hallucinogens (like LSD and Mushrooms), alcohol hallucinosis, barbiturate withdrawal, etc. consider a urine drug screen to rule these out.
2. Epilepsy: Temporal lobe epilepsy.
3. Other psychotic disorders: schizoaffective, schizophreniform, brief psychotic disorder, delusional disorder.
4. Medical: steroids, CVAs, HIV, etc. Need a medical work-up to rule these out.
5. Personality disorders: schizotypal, schizoid, and borderline personality disorder have the most similar symptoms. Must look at the duration of symptoms as well as the patient's level of functioning.

TYPES OF SCHIZOPHRENIA (according to DSM-IV)

There are five basic types: paranoid type, disorganized type, catatonic type, residual type and the undifferentiated type.

Paranoid type

Presenting symptoms: these patients typically have a preoccupation with one or more delusions and/or hallucinations, usually involving grandeur or persecution.

Risk Factors: these patients tend to be older: typical age of onset is in their late 20s or 30s.

The paranoid type is the most common type of schizophrenia and it has better prognosis than the other types.

Disorganized type

Presenting symptoms: disorganized speech and behavior, flat or inappropriate affect, marked regression to primitive, uninhibited behavior, severe thought disorder, and poor contact with reality.

Risk Factors: these patients tend to be < 25 years old, so it has the worst prognosis among the other types of schizophrenia.

Generally speaking, the earlier the schizophrenia starts, the worst is the prognosis.

Catatonic type

Presenting symptoms: the main theme in these patients is that they stay in a fixed position. Psychomotor disturbances, ranging from severe retardation to excitation. Extreme negativism. Peculiarities of voluntary movements. Mutism is very common. Sometimes they stay in fixed positions for hours.

Complications: medical care may be necessary because of exhaustion, malnutrition, or self-inflicted injury.

Schizophrenia, catatonic type, has a good prognosis.

They can suffer from dehydration and malnutrition.

Undifferentiated type

Presenting symptoms: meet criteria of schizophrenia but do not meet criteria for paranoid type, catatonic type, or disorganized type.

Residual type

Presenting symptoms: an absence of prominent delusions, hallucinations, disorganized speech/behavior, or catatonic behavior. Despite an absence of overt psychotic symptoms, tend to have negative symptoms (e.g. social withdrawal, poor grooming, anhedonia, cognitive defects, etc).

They are usually older. Maybe in the past, these patients were classified as one of the above types, but with time they end up in this category: Residual type.

OTHER PSYCHOTIC DISORDERS

Brief Psychotic Disorder

Presenting symptoms: hallucinations, delusions, disorganized speech, disorganized or catatonic behavior, but all of these lasting more than one day but less than 30 days.

Risk Factors: seen most frequent in patients of low socioeconomic status as well as in those who have preexisting personality disorders or are in the presence of psychological stressors.

Treatment:

- Hospitalization is indicated if the patient is acutely psychotic, to assure the safety of her/himself or of others.
- Pharmacotherapy will include both antipsychotics and benzodiazepines. The benzodiazepines may be used for short-term treatment of psychotic symptoms. Treatment is usually continued for one to 3 months.
- Symptoms usually resolve.
- If symptoms continue more than one month then this is not Brief Psychotic Disorder, but a Schizophreniform Disorder.

SCHIZOPHRENIFORM DISORDER

Presenting symptoms: hallucinations, delusions, disorganized speech, disorganized or catatonic behavior, negative symptoms, social and/or occupational dysfunction. Symptoms are present for more than 1 month but less than 6 months. Most of patients return to their baseline level of functioning.

Risk Factors: many of these patients have affective symptoms, as compared with schizophrenics. Suicide is a risk factor given that the patient is likely to have a depressive episode after the psychotic symptoms resolve.

Treatment:

- Must assess whether the patient needs hospitalization, to assure the safety of the patient and/or others.
- Antipsychotic medication is indicated for a 3-6 month course. Individual psychotherapy may be indicated to help the patient assimilate the psychotic experience into hi/her life.
- If the symptoms continue to more than 6 months, we will change the diagnosis to schizophrenia and will continue the treatment for more than 6 months.

SCHIZOAFFECTIVE DISORDER

Presenting symptoms:

- Uninterrupted period of symptoms meeting criteria for a major depressive episode, manic episode, or mixed episode.
- Symptoms of schizophrenia.
- Delusions or hallucinations for at least 2 weeks in the absence of mood symptoms.

Prognosis: better prognosis than patients with schizophrenia, worst prognosis than patients with mood disorders.

Treatment:

- Must first determine whether hospitalization is necessary.
- Use antidepressant medications and/or anticonvulsants to control the mood symptoms.
- If these are not effective, consider the use of antipsychotic medications to help control the symptoms.

DELUSIONAL DISORDER

Presenting symptoms:

- Nonbizarre delusions for at least 1 month.
- No hallucinations.
- No impairment in level of functioning.
- Patients are usually reliable except in relationship to their delusions.
- Types include: erotomanic, jealous, grandiose, somatic, mixed, and unspecified.

Risk Factors:

- Mean age of onset is about 40 years. Seen more commonly in women, and most of these patients are married and employed.
- Delusional disorder has been associated with low socioeconomic status as well as recent immigration.
- Can usually see abnormalities in either the limbic system or basal ganglia, if medial causes are determined to be the cause of the delusions.

Treatment:

- Outpatient treatment is usually preferred, but the patient may need hospitalization to rule out medical causes for the delusional disorder.
- Pharmacotherapy consists of antipsychotic medications; however, most studies indicate that many patients do not respond to treatment.

- Individual psychotherapy is recommended, in which the focus would be on having the patient trust the physician so that the physician can point out to the patient how the delusions are both distressing and interfere with normal life.

Reference:

Kaplan Medical Lecture from the youtube.com

Psychiatry Lecture for 5th Year

2015-2016 Mustansitiya Medical College. 1st of Nov. 2015 Dr. Sami Adil

OBSESSIVE-COMPULSIVE AND RELATED DISORDERS

(Lecture of 2 hours in the syllabus)

They include:

1. obsessive-compulsive disorder,
2. body dysmorphic disorder,
3. trichotillomania (hair-pulling disorder),
4. hoarding disorder and
5. excoriation (skinpicking) disorder.

Obsessive-Compulsive Disorder

Obsession is defined as: an anxiety-provoking intrusive thoughts which tend to be repetitive, senseless, and commonly concerning: Contamination, Doubt, Guilt, Aggression, Sex.

The most common type of obsession ideas in the west is regarding contamination. A study in Iraq had shown that religious obsessions are the most common followed by contamination, and the Iraqi study found also a delay to consult a psychiatrist measured as average of about 5 years ⁽¹⁾.

Compulsions are defined as: peculiar behaviors that tend to be repetitive and time-consuming, and reduce anxiety, such as: Hand washing, Organizing, Checking, Counting, and Praying.

The patient can have obsessions only, compulsions only, or both.

Risk Factors / Etiology: Abnormalities of serotonin metabolism.

Genetics: a family study done in Iraq found that OCD is present in about 6% in the first degree relatives of patients of OCD while present in 2.5% in the control group ⁽²⁾.

- Prevalence: 2% of population worldwide. The Iraqi Mental Health Survey (IMHS) estimated the lifetime prevalence of OCD in Iraq to be 1.4% in the general population ⁽³⁾. Occurs at a 1:1 male to female ratio.
- Onset: insidious; occurs during childhood, adolescence or early adulthood.
- Course: usually chronic; symptoms worsen with stress. Symptoms usually wax and wane.
- Associated problems: Depression and substance abuse.

Treatment:

The pharmacotherapy is the first choice. It is better than behavioral therapy. But ideally both of them should be used.

1. Pharmacology: SSRIs (FDA approve fluoxetine, sertraline, paroxetine, and fluvoxamine), TCA (only clomipramine is FDA approved).
2. Behavioral therapy: Relaxation training; Guided imagery; and Exposure and response prevention (e.g. for Exposure and response prevention: a patient with obsessions about cleanness and compulsions of hand washing → Expose him or her to dirty things and prevent him from washing and made him or her relax and see that this is not dangerous).

Body Dysmorphic Disorder

Body dysmorphic disorder is characterized by a preoccupation with an imagined defect in appearance that causes clinically significant distress or impairment in important areas of functioning. If a slight physical anomaly is actually present, the person's concern with the anomaly is excessive and bothersome. The disorder is also called dysmorphophobia.

Epidemiology: is a poorly studied condition, partly because patients are more likely to go to dermatologists, internists, or plastic surgeons than to psychiatrists.

Available data indicate that the most common age of onset is between 15 and 30 years and that women are affected somewhat more often than men. Affected patients are also likely to be unmarried.

Etiology

The cause of body dysmorphic disorder is unknown. The high comorbidity with depressive disorders, a higher-than-expected family history of mood disorders and obsessive-compulsive disorder (OCD), and the reported responsiveness of the condition to serotonin-specific drugs indicate that, in at least some patients, the pathophysiology of the disorder may involve serotonin and may be related to other mental disorders.

Clinical Features

The most common concerns involve the face (e.g., the nose). Sometimes the concern is vague and difficult to understand. Other body parts of concern are hair, breasts, and genitalia. A proposed variant of dysmorphic disorder among men is to develop large muscle mass, which can interfere with ordinary living, holding a job, or staying healthy. As many as one third of the patients may be housebound because of worry about being ridiculed for the alleged deformities, and approximately one fifth attempt suicide.

Differential Diagnosis

1. Normal concerns about appearance.
2. Mood-congruent cognitions involving appearance that occur exclusively during a major depressive episode.
3. Individuals with avoidant personality disorder or social phobia may worry about being embarrassed by imagined or real defects in appearance, but this concern is usually not prominent, persistent, distressing, or impairing.
4. OCD: a separate or additional diagnosis of OCD is made only when the obsessions or compulsions are not restricted to concerns about appearance and are ego-dystonic.
5. Delusional disorder, somatic type, can be made in people with body dysmorphic disorder only if their preoccupation with the imagined defect in appearance is held with a delusional intensity.
6. Anorexia nervosa.
7. Gender identity disorder.

Course and Prognosis

The disorder usually has a long and undulating course with few symptom-free intervals. The part of the body on which concern is focused may remain the same or may change over time.

Treatment

Treatment of patients with body dysmorphic disorder with surgical, dermatological, dental, and other medical procedures to address the alleged defects is almost invariably unsuccessful. SSRIs and clomipramine are of help in some patients.

Trichotillomania:

A disorder characterized by pulling one's own hair. Patients present to the dermatologist also.

Risk factors/ epidemiology:

- Affects women more than men.
- Lifetime prevalence rate of 1-2%
- Associated with OCD, Obsessive compulsive PD, Tourette's syndrome, depressive disorders, and autism.

Physical and psychiatric presenting symptoms:

- Hair loss is significant over all areas of the body (usually involves the scalp, but may include eyelashes, eyebrows, axillae, pubic, and any other body regions.)
- Exacerbated by stress or relaxation (e.g. reading, watching T.V.)
- Area most affected is the scalp.
- May eat the hair → may cause intestinal obstruction.
- Head banging, nail biting.
- Examination of the scalp reveals short, broken hairs along with long hairs (helps differentiate from alopecia).

Treatment:

Behavioral modification techniques. Pharmacotherapy: there is some evidence of use of SSRIs, clomipramine, pimozide, risperidone, and lithium.

DDx.:

- Medical: alopecia areata or tineacapitis.
- Psychiatric: OCD, or factitious disorder.

Hoarding Disorder:

Hoarding disorder is characterized by the persistent difficulty discarding or parting with possessions, regardless of the value others may attribute to these possessions. Must cause dysfunction or distress to diagnose it as a disorder, otherwise, it is normal and can be a beneficial hobby.

Excoriation (Skin-Picking) Disorder:

Excoriation (skin-picking) disorder is characterized by recurrent skin picking resulting in skin lesions.

References:

1. Ahmed Jefer AL- Karagully. Symptoms profile of obsessive compulsive disorder in Baghdad. 2009. A non-published thesis.
2. Ali A. Al-Saaidi. Family study of OCD in Iraq. 2002. A non-published thesis.
3. Iraqi Mental Health Survey 2006-2007
4. The core text is taken from Kaplan medical lectures from youtube.com
5. New updates of DSM 5 are taken from www.DSM5.org

Emotions

Emotions الإنفعالات are typically brief, lasting only seconds or minutes, but moods جمع مزاج الأمزجة last longer (hours or even days).

Basic emotions are related to instincts غرائز. Instincts are built-in in the animal structure. Hence any animal has some basic emotions like fear and anger. These basic emotions are not learned. Although can be subjected to conditioning.

Freud thought that there are two instincts (death instinct and life instinct). And these two instincts, according to Freud, are accompanied by two basic emotions: hate and love.

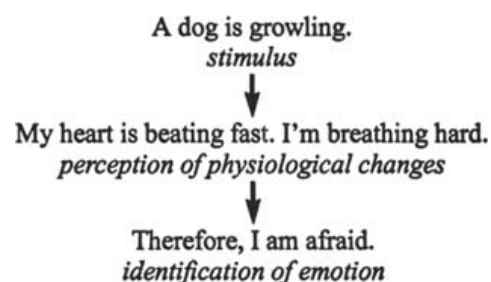
Darwin found that the basic emotions are also present in animals. Since animals have less facial mobility than we, he included their use of full-body language to express feeling.

Seven emotions are currently distinguished: anger, fear, excitement, interest, surprise, disgust, and sadness. Limbic system is the center of emotional brain. Distinctly human emotions, such as pride, guilt, envy, etc. are largely learned and most likely are represented in the cortex, and they don't appear in newborns. The regulation of drives appears to require an intact frontal cortex. Damage to the frontal lobes lead to emotional liability and disinhibition.

There is a relation between specific combinations of the levels of the neurotransmitters dopamine, noradrenalin and serotonin and eight basic emotions.

James–Lange theory

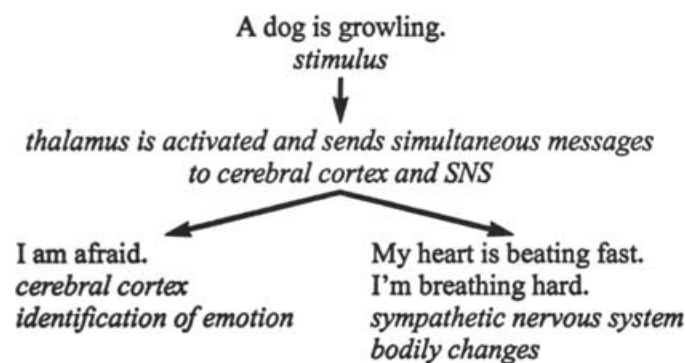
This theory propose that emotions do not immediately follow the perception of an event but rather occur after the body has responded to the event. The progression is



These experiments also have therapeutic implications (for example: biofeedback, and Botox injection to paralyze the muscles in the eye-brows that create expressions of sadness, anger, and fear as treatment of depression, also beta-blockers for treatment of anxiety).

Canon-Bard theory

This theory criticized James-Lange theory and Canon and Bard did experiments on decorticated cats to conclude that the **thalamus** is necessary for emotional responses. The thalamus sends messages to the cortex for interpretation of the emotion and simultaneously to the sympathetic nervous system for appropriate physical responses. The progression is



Cognitive theory

Also called Singer–Schachter theory which is based on experiments that showed that subjects can have different emotional reactions despite being placed into the same physiological state with an injection of adrenaline. Subjects were observed to express either anger or amusement depending on whether another person in the situation displayed that emotion. Hence, the combination of the appraisal of the situation (cognitive) and the participants' reception of adrenaline together determined the response.

This cognitive activity may be conscious or unconscious.

Emotion, according to the cognitive theory, occurs in the following order: 1.) Cognitive appraisal *تخمين، تقييم، تئمين*—The individual assesses the event cognitively, 2.) Physiological changes—The cognitive reaction starts biological changes such as increased heart rate or pituitary adrenal response. 3.) Action—The individual feels the emotion and chooses how to react.

For example: Hiba sees a snake. 1.) Hiba cognitively assesses the snake in her presence, which triggers fear. 2.) Her heart begins to race faster. Adrenaline pumps through her blood stream. 3.) Hiba screams and runs away.

Emotions and the Brain

The two hemispheres:

Lesion in the left hemisphere has been found to cause hopelessness, despair and anger in the majority of patients, while lesion in the right hemisphere has been found to be associated with indifference and euphoria. But there are some cases that do not follow this rule.

Extreme emotional reactions have also been reported after unilateral injection of sodium amobarbital into the carotid artery: Lt. sided inj.--→ dysphoric reactions and crying, while Rt. Sided inj. --→ euphoria and laughter. Also this was not always true.

In epilepsy, there are some rare cases of have an attack of laughter or attack of crying. When the focus of the seizure is in the left hemisphere → laughing; while when the focus is in the right → crying.

The temporal lobes:

The temporal lobes contain parts of the limbic system. A proposed temporal lobe epilepsy (TLE) personality is characterized by hyposexuality, emotional intensity, and a perseverative approach to interactions, termed viscosity. Patients with left TLE may be more interested in philosophical themes and display a humorless approach to life. In contrast, patients with right TLE may display excessive emotionality, ranging from elation to sadness.

The inverse of a TLE personality appears in persons with bilateral injury to the temporal lobes after head trauma, cardiac arrest, herpes simplex encephalitis, or Pick's disease. This lesion resembles the one described in the Klüver-Bucy syndrome, an experimental model of temporal lobe ablation in monkeys. Behavior in this syndrome is characterized by hypersexuality, placidity, a tendency to explore the environment with the mouth, inability to recognize the emotional significance of visual stimuli, and constantly shifting attention, called hypermetamorphosis.

In contrast, damage to the amygdala has been reported to ablate the ability to distinguish fear and anger in other persons' voices and facial expressions. Persons with such injuries may have a preserved ability to recognize happiness, sadness, or

disgust. The amygdala appears to be a critically important gate through which internal and external stimuli are integrated. Information from the primary senses is interwoven with internal drives, such as hunger and thirst, to assign emotional significance to sensory experiences. The limbic system appears to house the emotional association areas, which direct the hypothalamus to express the motor and endocrine components of the emotional state.

Emotional intelligence

Defined as the ability to identify, assess, and control the emotions of oneself, of others, and of groups.

In 1983, Howard Gardner introduced the idea of multiple intelligences which included both *interpersonal intelligence* (the capacity to understand the intentions *نِيَّات*, motivations *دوافع* and desires of other people) and *intrapersonal intelligence* (the capacity to understand oneself, to appreciate *تقييم* one's feelings, fears and motivations). In Gardner's view, traditional types of intelligence, such as IQ, fail to fully explain cognitive ability.

Recently discovered is a special group of “mirror neurons” that reside in the insula and anterior cingulate. These neurons are more highly developed in humans than in primates and appear to mediate empathy—the experience of “feeling” the emotions of another.

References:

Hilgard. Introduction to psychology

Kaplan. Synopsis of psychiatry

The Physician–Patient Relationship

Typical Board Question

A 22-year-old man with schizophrenia is brought to the emergency department from an inpatient psychiatric facility a half hour after accidentally cutting himself while slicing bread. The patient has a 5 cm cut on his hand which requires suturing. He refuses treatment for the cut and states “I know I have a thought problem I take medication for, but I never know who to trust. I want to wait until my parents get here. I know my hand can get infected if I wait too long, but I don’t think a few hours are going to make a big difference.” What is the best course of action for the doctor to take at this time?

- (A) Do not treat and determine if the parents are on the way.
- (B) Do not treat until a court order is obtained.
- (C) Do not treat until obtaining a psychiatric evaluation.
- (D) Treat because the patient admits he has a psychiatric disorder.
- (E) Treat because the patient has been placed in a psychiatric facility.
- (F) Treat because the patient shows signs of paranoia and is thus incompetent.

(See “Answers and Explanations” at end of chapter.)

I. MEDICAL PRACTICE

A. Seeking medical care

1. Patients’ behavior when ill and their expectations of physicians are influenced by their **culture** (see Chapter 18), previous experiences with medical care, physical and mental conditions, **personality styles** (not necessarily personality disorders: See Table 14.3) (Table 21.1) and **coping skills**.
2. Only about **one-third of Americans with symptoms seek medical care**; most people contend with illnesses at home with over-the-counter medications and home management.

B. Seeking psychiatric care

1. In the United States, there is a **stigma** to having a psychiatric illness. Psychiatric symptoms are considered by many Americans to indicate **a moral weakness** or **a lack of self-control**. Because of this stigma, many patients fail to seek help.
2. It is important for patients to seek help since there is a strong **correlation between psychological illness and physical illness**. Morbidity rates and mortality rates are much higher in patients who need psychiatric attention.

C. The “sick role”

1. A person assumes a particular role in society and certain behavioral patterns when he or she is ill (the “sick role,” described by T. Parsons). The sick role includes **exemption from**

table 21.1 Patient Personality Style and Behavioral Characteristics During Illness

Personality Style	Behavioral Characteristics During Illness
Paranoid	Blames the physician for the fact that he or she is ill
Schizoid	Becomes even more withdrawn during illness
Schizotypal	Bizarre behavior may mask serious illness
Histrionic	May be dramatic, emotionally changeable, and approach the physician in an inappropriate sexual fashion during illness
Narcissistic	Has a perfect self-image, which is threatened by illness and may refuse needed treatment which can alter his or her appearance
Antisocial	May self-write or alter prescriptions and lie to the physician
Borderline	Idealizes the physician at first, may make gestures of self-harm when ill
Avoidant	Interprets physician health suggestions as criticisms, fears rejection by the doctor, is overly sensitive to a perceived lack of attention or caring
Obsessive–compulsive	Fears loss of control and may in turn become more controlling during illness
Dependent	Becomes more needy during illness and wants the physician to make all decisions and assume all responsibility
Passive–aggressive	Asks for help but then does not adhere to the physician’s advice

usual responsibilities and expectation of care by others, as well as working toward becoming healthy and cooperating with health care personnel in getting well.

2. Critics of the sick role theory argue that it **applies only to middle-class** patients with acute physical illness, emphasizes the power of the physician, and undervalues the individual’s social support network in getting well.

D. Telling patients the truth

1. In the United States, adult patients generally are **told the complete truth** about the diagnosis, the management and its side effects, and the prognosis of their illness. **Falsely reassuring** or **patronizing statements** in response to patient questions (e.g., “Do not worry, we will take good care of you” or “You still have one child” [after a miscarriage]) are not appropriate.
2. Information about the illness must be **given directly to the adult patient** and **not relayed to the patient through relatives**. **Parents decide** if, how, and when such information will be given to an **ill child**.
 - a. With the **patient’s permission**, the physician can tell relatives this information in conjunction with, or after, telling the patient.
 - b. Relieving the fears of close relatives of a seriously ill patient can bolster the support system, and thus help the patient.

E. Special situations

1. Patients may be **afraid to ask questions** about issues that are **embarrassing** (e.g., sexual problems) or **fear-provoking** (e.g., laboratory results). A physician should not try to guess what is troubling a patient; it is the physician’s responsibility to ask about such issues in an open-ended fashion (see section III.B.2.b.) and address them truthfully and fully with the patient.
2. Physicians have the primary responsibility for dealing with **adherence issues** (see II below), as well as with **angry, seductive, or complaining behavior** by their patients (Table 21.2). Referrals to other physicians should be reserved only for medical and psychiatric problems outside of the treating physician’s range of expertise.

II. ADHERENCE

A. Patient characteristics associated with adherence

1. Adherence refers to the extent to which a patient follows the recommendations of the physician, such as taking medications on schedule, having a needed medical test or surgical procedure, and following directions for changes in lifestyle, such as diet or exercise.

Table 21.2 Do's and Do Not's for Answering USMLE Questions Involving Common Problems in the Physician–Patient Relationship

Problem	Do	Do Not
Angry patient	Do acknowledge the patient's anger	Do not take the patient's anger personally (the patient is probably fearful about becoming dependent as well as of being ill)
Complaining patient: About another doctor	Do encourage the patient to speak to the other physician directly if the patient complains about a relationship with another physician	Do not intervene in the patient's relationship with another physician unless there is a medical reason to do so
Complaining patient: About you or your staff	Do speak to your own office staff if the patient has a complaint about one of them	Do not blame the patient for problems with you or your office staff
Crying patient	Do acknowledge the patient's sadness and quietly wait for the patient to speak	Do not rush the patient or use patronizing statements such as "do not worry" to comfort the patient Do not say "I understand." The patient makes that judgment.
Nonadherent patient: Needs to improve health behavior	Do examine the patient's willingness to change his or her health-threatening behavior (e.g., smoking); if he or she is not willing, you must address that issue first	Do not attempt to scare the patient into adhering (e.g., showing frightening photographs of untreated illness)
Nonadherent patient: Needs a test or treatment (e.g., mammogram)	Do identify the real reason (e.g., fear) for the patient's refusal to adhere to or to consent to a needed intervention and address it	Do not refer the patient to another physician
Seductive patient	Do call in a chaperone when you are with the patient Do gather information using direct rather than open-ended questions Do set limits on the behavior that you will tolerate	Do not refuse to see the patient Do not refer the patient to another physician Do not fail to act if the patient crosses a social boundary
Suicidal patient	Do assess the seriousness of the threat Do suggest that the patient remain in the hospital voluntarily if the threat is serious	Do not assume that the threat is not serious Do not release a hospitalized patient who is a threat to himself or herself (patients who are a threat to self or others can be held involuntarily [see Chapter 23])

2. Patients' **unconscious** transference reactions to their physicians, which are based in childhood parent–child relationships, can increase or decrease adherence (see Chapter 6).
3. Only about **one-third of patients adhere fully to management recommendations**, one-third adhere some of the time, and one-third do not adhere to such recommendations.

B. Factors that increase and decrease adherence

1. Adherence is **not related to patient intelligence, education, sex, religion, race, socioeconomic status, or marital status**.
2. Adherence is most closely related to **how well the patient likes the doctor**. The strength of the doctor–patient relationship is also the most important factor in whether or not patients sue their doctors when an error or omission is made or when there is a poor outcome (see Chapter 23).
3. Some factors associated with adherence are listed in Table 21.3.

III. THE CLINICAL INTERVIEW

A. Communication skills

1. Patient adherence with medical advice, detection of both physical and psychological problems, and patient satisfaction with the physician are improved by good physician–patient communication.

table 21.3 Factors Associated with Adherence to Medical Advice

Factors Associated with Increased Adherence	Factors Associated with Decreased Adherence	Comments
Good physician–patient relationship	Poor physician–patient relationship	Liking the physician is the most important factor in adherence; it is even more important than the physician's technical skill Physicians perceived as unapproachable have low adherence from patients
Patient feels ill and usual activities are disrupted by the illness	Patient experiences few symptoms and little disruption of usual activities	In asymptomatic illnesses, such as hypertension, only about half of the patients initially adhere to management Many asymptomatic patients who initially adhered have stopped adhering within 1 yr of diagnosis
Short time spent in the waiting room	Long time spent in the waiting room	Patients kept waiting get angry and then fail to adhere
Belief that the benefits of care outweigh its financial and time costs	Belief that financial and time costs of care outweigh its benefits	The “Health Belief Model” of health care
Written diagnosis and instructions for management	Verbal diagnosis and instructions for management	Patients often forget what is said during a visit to the physician because they are anxious Asking the patient to repeat your verbal instructions can improve understanding and thus increase adherence
Acute illness	Chronic illness	Chronically ill people see physicians more often but are more critical of them than acutely ill people
Recommending only one behavioral change at a time	Recommending multiple behavioral changes at once	To increase adherence, instruct the patient to make one change (e.g., stop smoking) this month, and make another change (e.g., start dieting) next month Recommending too many changes at once will reduce the likelihood that the patient will make any changes
Simple management schedule	Complex management schedule	Adherence is higher with medications that require once daily dosing, preferably with a meal Patients are more likely to forget to take medications requiring frequent or between-meal dosing
Older physician	Younger physician	Usually young physician age is only an issue for patients in the initial stages of management
Peer support	Little peer support	Membership in a group of people with a similar problem (e.g., smoking [see Chapter 9]) can increase adherence

2. One of the most important skills for a physician to have is **how to interview patients**.
 - a. The **physical setting** for the interview should be as private as possible. Ideally, there should be **no desk or other obstacle** between the physician and patient, and the participants should interact at **eye level** (e.g., both seated).
 - b. During the interview, the physician must first **establish trust in** and **rapport with** the patient and then gather physical, psychological, and social information to identify the patient's problem.
 - c. Finally the physician should try to educate the patient about the illness and motivate the patient to adhere to management recommendations.
 - d. The physician should obtain backup (e.g., hospital security) if it appears that a patient is **dangerous** or **threatening**.
3. The interview serves to obtain the patient's **psychiatric history**, including information about prior mental problems, drug and alcohol use, sexual activity, current living situation, and sources of stress.
4. When interviewing **young children** the physician should
 - a. First establish rapport by interacting with the child in a nonmedical way, for example, drawing pictures.
 - b. Use direct rather than open-ended questions, for example, “What is your sister's name?” rather than “Tell me about your family.”
 - c. Ask questions in the third person, for example, “Why do you think that the little boy in this picture is sad?”

table 21.4 Aims of the Clinical Interview and Specific Interviewing Techniques

Aim	Technique	Specific Use	Example
To establish rapport	Support and empathy	To express the physician's interest, understanding, and concern for the patient	"You must have really been frightened when you realized you were going to fall."
	Validation	To give value and credence to the patient's feelings	"Many people would feel the same way if they had been injured as you were."
To maximize information gathering	Facilitation	To encourage the patient to elaborate on an answer; can be a verbal question or body language, such as a quizzical expression	"Please tell me more about what happened after that."
	Reflection	To encourage elaboration of the answer by repeating part of the patient's previous response	"You said that your pain increased after lifting the package?"
	Silence	To increase the patient's responsiveness	Waiting silently for the patient to speak
To clarify information	Confrontation	To call the patient's attention to inconsistencies in his or her responses or body language	"You say that you are not worried about tomorrow's surgery, but you seem really nervous to me."
	Recapitulation	To sum up all of the information obtained during the interview to ensure that the physician understands the information provided by the patient	"Let's go over what you told me. You fell last night and hurt your side. Your husband called 911. The paramedics came but the pain got worse until they gave you a shot in the emergency room. Have I gotten it right?"

B. Specific interviewing techniques

1. **Direct questions.** Direct questions are used to elicit specific information quickly from a patient in an **emergency** situation (e.g., "Have you been shot?") or when the patient is seductive or overly talkative.
2. **Open-ended questions**
 - a. Although direct questions can elicit information quickly, open-ended types of questions are more likely to aid in obtaining information about the patient, and not close off potential areas of pertinent information.
 - b. Using open-ended questions (e.g., "What brings you in today?"), the interviewer gives little structure to the patient and **encourages the patient to speak freely**.
3. Table 21.4 lists aims of the clinical interview and gives examples of some specific interviewing techniques.

PSYCHIATRY AND THE LAW

The relationship between psychiatry and the law involves two aspects, mental health acts, and forensic psychiatry. Mental health acts regulate the function and practice of psychiatry. The aim is to outline the responsibility of the psychiatrist, prevent the abuse of psychiatry, and to protect the rights of the mentally ill. Forensic (legal) psychiatry deals with the application of psychiatry to legal issues for legal purposes. It deals with the technical aspect of psychiatric evaluation that determines the mental competence (fitness) and legal responsibility of an individual. Forensic psychiatry has two aspects, one that deals with criminal laws, and the other deals with civil laws. The criminal aspect deals with issues related to criminal offences as legal responsibility, and fitness to stand trial, to be sentenced, and to be a witness. The civil aspects deals with issues related to social and financial matters as fitness to make a will, management of financial affairs, custody of children, and refusal of medical or psychiatry treatment. The duty of the psychiatrist is to provide the court with a factual evaluation of the mental state and not to make judgment ⁽¹⁾.

In Iraq we still don't have a "Mental Health Act" applied. There is a draft مسودة mental health act in the final stage of legislation. In Britain, till 1930, there was no voluntary treatment for the mentally ill. In the 18th century they made a law called a "vagrancy law تشرد" allowing the confinement حبس of the "furiously mad and dangerous" and made laws regulating private madhouses practice. After 1930, when the mentally ill started seek voluntary treatment, the law was reformed and started every period of time be reformed for the sake of the patient's right. The laws differ from a country to another but generally it states for example the period that we can force a patient to inpatient therapy (the laws differ from 3 months to 12 months and usually this need the opinion of many professionals and not only one psychiatrist).

Prison psychiatry

The prevalence of mental disorder in the prison population is high. Psychotic disorders: 2-10%; affective/neurotic disorders, drug-related disorder, personality disorder. It has been estimated that 23-55% of prisoners have psychiatric treatment needs, with 2-5% requiring transfer to psychiatric hospital and the rest can be treated in the prison.

Forensic psychiatry

The scope of forensic psychiatry can be broadly defined as those areas where psychiatry interacts with the law. The Iraqi "civil code" قانون الأحوال الشخصية contains details about psychiatric illness and things like: writing a will, divorce, custody وصاية of children, etc.. In the Iraqi "criminal codes" قانون العقوبات regard the complete absence of will الإرادة and perception الإدراك as a cause for "**not guilty by reason of insanity**", and the partial absence of will and perception as "**reduced responsibility**". And regard subjects who were forced to drink alcohol or other mind-altering substance and then committing a crime as "**not guilty**", while those who took alcohol or other mind-altering substance and then commit a crime as "**guilty**".

الباب الرابع

(المجرم)

الفصل الأول

المسؤولية الجزائية وموانعها

١. فقد الإدراك والإرادة:

المادة - ٦٠ -

لا يسأل جزائياً من كان وقت ارتكاب الجريمة فاقد الإدراك أو الإرادة لجنون أو عاهة في العقل أو بسبب كونه في حالة سكر أو تخدير نتجت عن مواد مسكرة أو مخدرة أعطيت له قسراً أو على غير علم منه بها، أو لأي سبب آخر يقرر العلم أنه يفقد الإدراك أو الإرادة. أما إذا لم يترتب على العاهة في العقل أو المادة المسكرة أو المخدرة أو غيرها سوى نقص أو ضعف في الإدراك أو الإرادة وقت ارتكاب الجريمة عد ذلك عذراً مخففاً.

المادة - ٦١ -

إذا كان فقد الإدراك أو الإرادة ناتجاً عن مواد مسكرة أو مخدرة تناولها المجرم بأختياره وعلمه عوقب على الجريمة التي وقعت ولو كانت ذات قصد خاص كما لو كانت قد وقعت منه بغير تخدير أو سكر^(٤) فإذا كان قد تناول المسكر أو المخدر عمداً بغية ارتكاب الجريمة التي وقعت منه عد ذلك ظرفاً مشدداً للعقوبة.

٢. الإكراه:

المادة - ٦٢ -

لا يسأل جزائياً من أكرهته على ارتكاب الجريمة قوة مادية أو معنوية لم

(٤) قرار مجلس قيادة الثورة المرقم ١٤٧٧ في ١٥/٩/١٩٨٠ حول عدم اعتبار حالة تناول المسكر بإرادة الفاعل واختياره عذراً مخففاً للعقوبة يستدعي الرأفة. نشر القرار في الوقائع العراقية العدد ٢٧٩٦ في ١٩/٩/١٩٨٠.

Mental disorder and offending (offense = جريمة, offending = ارتكاب جريمة)

What is the relationship between mental disorder and offending?

Mental disorder is common and offending is common, so it would not be surprising to find an individual with both. But is the relationship more than coincidental? When looking at studies of this relationship one needs to consider:

Most of the research has focused on violence. The following are the main conclusions to be drawn from current evidence:

- People with mental disorder as a broad group are no more or less likely to offend than the general population.
- Some specific mental disorders do increase the risk of a person acting violently, particularly alcohol and drug-related disorders and personality disorders (especially those with predominant cluster B characteristics).
- Schizophrenia has a modest طفيف association with violence, but the overwhelming majority of people with schizophrenia are never violent, being more likely to be victims than perpetrators of violence.

- In people with mental disorders the factors most strongly associated with offending are the same as for non-mentally disordered offenders: male gender, young age, substance misuse, disturbed childhood, socioeconomic deprivation.
- When considering an offence perpetrated by a person with mental disorder, one should bear in mind that, as with any offence, there is interplay between the perpetrator, the victim, and the situational circumstances. Although mental disorder may play a part it is rarely the only factor that leads to an offence.

Specific disorders and offending

Schizophrenia

The life-time risk of violence in people with schizophrenia is about 5 times that in the general population. Factors most commonly associated with violence in people with schizophrenia are those associated with violence in people without psychosis. Alcohol and drug misuse are particularly important. Delusions regarding being threatened or being controlled have been found to be associated with violence, but again, most patients with these symptoms are never violent. The role of command auditory hallucinations is unclear. When people with psychosis are violent the victim is more likely to be known to them (particularly relatives) than when violence is committed by non-psychotic individuals.

Delusional disorders

Increased risk of violence has been reported to be associated with persecutory delusions, misidentification delusions, delusions of jealousy, and delusions of love. Jealousy may be dangerous whether it is delusionally based or not.

Mood disorders

Mood disorders have a far less strong relationship with offending and violence than schizophrenia. Mania commonly leads to minor offending due to grandiosity and disinhibition, but rarely leads to serious violence or sexual assaults. Depression is very rarely associated with violence or offending. Extended suicide (also known as altruistic homicide), in which a depressed parent (usually the father) kills members of their family before attempting and perhaps succeeding in killing themselves, is extremely rare and impossible to predict.

Infanticide

In cases involving the killing of a child aged under 12 months by the mother she may be convicted of infanticide instead of murder if the court is satisfied that the balance of her mind was disturbed by reason of her not fully having recovered from the effect of giving birth to the child, or by reason of lactation consequent upon the birth. Some countries, like the UK, make a separate code for infanticide.

Alcohol and substance-related disorders

Alcohol and drug-related problems are more strongly linked to offending and violence than any other mental disorders. A number of aspects of alcohol and substance misuse may be relevant: direct effects of intoxication or withdrawal; funding the habit; the personal and social consequences of dependence; the neuropsychiatric sequelae of prolonged misuse; the social context (peer group, socio-economic deprivation,

childhood mistreatment), and personal characteristics (impulsivity and sensation seeking), which may lead to substance misuse, may also be associated with offending.

Personality disorders

Personality disorder is more strongly related to offending and violence than mental illness. Personality disordered offenders are heterogeneous: only a small number are psychopathic. Various aspects of personality disorder may be related to offending: impulsivity, lack of empathy, poor affect regulation, paranoid thinking, poor relationships with others, & problems with anger. In most criminal laws, PD is not an excuse of crime, and the offender is regarded as guilty.

Learning disability

Offending occurs more often in people with milder forms of learning disability than in those with severe learning disability. Offences are broadly similar to those in non-learning disabled offenders and are associated with family and social disadvantage.

Organic disorders

Aggression is well recognized in dementia, but rarely leads to serious violence. Delirium and brain injury may lead to aggression. In head injury cases it may be difficult to differentiate the effects of the head injury from pre-morbid personality. Epilepsy is twice as common in offenders as in the general population, but this is probably due to shared environmental and biological disadvantages that predispose individuals to both. Violence resulting from epileptic activity is extremely rare. In some states in the USA, epilepsy is not an excuse for the crime, and the patient is regarded as guilty.

In Iraq most cases that receive the verdict **حُكْم** "not guilty by reason of insanity" are schizophrenics, and secondly came the diagnosis of delusional disorder. ⁽²⁾

Court reports

Sometimes the court asks a psychiatrist to write a report about a suspected patient. The psychiatrist should take enough time in history taking and mental status examination and may use other data (ask to interview the family of the patients or the friends or colleagues). The psychiatrist should make it clear that the interview is not confidential and that the information in the report will be seen by others. If the person refuses to be interviewed then this should be respected and reported to the person requesting the report. The report should be clear, concise, well structured, and jargon-free. In Iraq the report is in Arabic. Technical terms (e.g. schizophrenia, personality disorder, delusions, hallucinations, thought disorder) should be explained if they are used. The opinion and recommendations should confine themselves to psychiatric issues. Punitive sanctions, such as imprisonment, should never be recommended.

References:

1. Rustam H. Clinical Neurology and Psychiatry. House of Books and Documents, Baghdad, Iraq. 2008: 475.
2. Al-Timimi, J. K. (2000) The Insanity Defence in Iraq. A thesis submitted to the scientific council of psychiatry in partial fulfillment for the degree of fellowship of the Iraqi commission for medical specialization in psychiatry. (non-published thesis).
3. Semple D, Smyth R, Burns J, *et al.* (2005) *Oxford handbook of psychiatry*, 1st Edition, Oxford University Press, Oxford
4. Iraqi criminal code قانون العقوبات العراقي

EATING DISORDERS

The main bulk of this lecture is taken from Kaplan Lectures from youtube.com¹.

1. ANOREXIA NERVOSA
2. BULIMIA NERVOSA

ANOREXIA NERVOSA: characterized by failure to maintain normal body weight. Typically lose more than 15-20% of ideal body weight associated with fear and preoccupation with gaining weight. They have unrealistic self-evaluation as overweight (body image disturbance). They have amenorrhea for three cycles or more.

Subtypes are:

1. Restricting (no binge-eating or purging),
2. Binge-eating/purging (regularly engage in binge-eating/purging).

Risk factors/Etiology

Biologic factors are suggested by higher concordance for illness in monozygotic twins. Amenorrhea may precede abnormal eating behavior. Psychological risk factors include emotional conflicts concerning family, control, and sexuality. A cultural risk factor may be an emphasis on thinness.

The available literature indicates that anorexia nervosa is rare among females in the Arab culture. Traditional values and cultural norms regards thinness as socially undesirable, with plumpness considered a sign of wellbeing in both genders and viewed as a symbol of fertility and womanhood in females. A positive relationship between body weight and higher social class has been observed in the Arab culture, contrary to Western ideals. It has been suggested that exposure to Western values regarding body shape and weight can be blamed for the occurrence of anorexia nervosa in the Arab region².

Prevalence: 0.5% in the USA. Occurs at a 1:10 male-to-female ratio. In Iraq there is no prevalence study on eating disorders but there are case reports³.

Onset: average age is 17 years. Very late-onset anorexia nervosa has a poorer prognosis.

Presentation: onset is often associated with emotional stressors, particularly conflicts with parents about independence, and sexual conflicts. Restricted food intake and maintaining diets of low-calorie foods. Prefer to eat alone, and if forced to eat with others, will serve themselves more food to later dispose of it. Collect food recipes and spend great deals of time in the preparation of food. Great concern with appearance. Significant amount of time spent examining: weighting the self and much time used in front of the mirror. Denial of emaciated conditions.

Associated symptoms: obsessive-compulsive symptoms, depressive symptoms.

Course: some individuals recover after a single episode and others develop a waxing-and-waning course.

Physical Examination: signs of malnutrition include emaciation, hypotension, bradycardia, lanugo, peripheral edema. Signs of purging include eroded dental enamel caused by emesis, and scarred or scratched hands from self-gagging to induce emesis. General medical conditions caused by abnormal diets, starvation, and purging.

Diagnostic tests: Signs of malnutrition: normochromic, normocytic anemia; elevated liver enzymes; abnormal electrolytes (they die from hypokalemia); low estrogen and testosterone levels; sinus bradycardia; reduced brain mass; and abnormal EEG.

Signs of purging: metabolic alkalosis; hypochloremia; hypokalemia caused by emesis; and metabolic acidosis caused by laxative abuse.

Treatment: Initial tr. should be a correction of significant physiologic consequences of starvation with hospitalization if necessary.

Behavioral therapy should be initiated, with rewards or punishments based on absolute weight, not on eating behaviors (e.g.: tell the patient to gain a half kilogram per week, and tell her that if she fails to do that you will put a nasogastric tube for her).

Family therapy designed to reduce conflicts about control by parents is often helpful.

Antidepressants may play a limited role in treatment when comorbid depression is present.

Differential Diagnosis: bulimia nervosa, General medical conditions that cause weight loss, major depressive disorder, schizophrenia, OCD, and body dysmorphic disorder

BULIMIA NERVOSA: Characterized by frequent binge-eating and purging and a self-image that is unduly **بإفراط** influenced by weight.

Subtypes:

1. Purging: self-induced vomiting or the use of laxatives, diuretics, or enemas.
2. Nonpurging: fasting or exercise, but no purging during bulimic episodes.

Risk Factors/ Etiology:

Psychological conflict regarding guilt, helplessness, self-control, and body image predispose.

Biological factors are suggested by frequent association with mood disorders.

Prevalence: 2% in young adult females. Occurs at a 1:9 male-to-female ratio.

Onset: usually during late adolescence or early adulthood and often follows a period of dieting.

Course: may be chronic or intermittent. 70% of cases have remitted after 10 years.

Co-occurring substance abuse is associated with a poorer prognosis.

Presentation: recurrent episodes of binge-eating. Recurrent, inappropriate compensatory behavior. Self-evaluation is unduly influenced by body shape and weight.

They prefer to eat alone, and if forced to eat with others will serve themselves less food and hide the rest. Will eat hidden food when others are not around.

Associated problems: depressive symptoms, substance abuse, and impulsivity.

Borderline personality disorder is present in about 50%.

Physical examination: evidence of purging.

Treatment: Cognitive and behavioral therapy are major treatment. Psychodynamic psychotherapies are useful accompanying borderline personality traits.

Antidepressant medications, particularly SSRIs, are usually employed.

Differential diagnosis: Anorexia nervosa, major depressive disorder with atypical features, and borderline personality disorder.

References:

1. Kaplan lectures from the youtube.com
2. Abou-Saleh M T, Younis Y, Karim L: **Anorexia Nervosa in an Arab culture**. *Int J Eat Disord* 1998, **23**:207-212.
3. Mohammed T. Abou-Saleh, Yahia Younis, and Lina Karim. Anorexia Nervosa in an Arab Culture. *Int J Eat Disord* 23: 207–212, 1998.

COGNITIVE DISORDERS: AMNESIA, DELIRIUM, AND DEMENTIA

(PART 1: Amnesia and Delirium)

5th year psychiatry lecture

Dr Sami Al-Badri/ 15th Nov. 2015

Al Mustansiriya

AMNESTIC DISORDER

Characterized by prominent memory impairment in the absence of disturbances in the level of alertness or the other cognitive problems that are present with delirium or dementia.

Etiology:

- Bilateral damage to diencephalic and mediotemporal structures
- Thiamine deficiency
- Head trauma
- Cerebrovascular disease
- Hypoxia
- Local infection
- Ablasive surgical procedures
- Seizures
- Alcohol (is the most likely cause in the western culture)

Presenting symptoms:

- Memory loss may be sudden or gradual depending on etiology
- Recent memory is disproportionately affected
- Confabulation (make-up stories) often occurs, as in Korsakoff
- When doing physical exam, will typically see evidence of alcohol abuse (e.g. hepatomegaly)

Alcohol-induced amnesic disorders	
Korsakoff (chronic irreversible)	Wernicke (acute reversible)
<ol style="list-style-type: none">1. Confabulation2. Amnesia (retrograde and anterograde)3. Confusion4. Psychosis, etc.	<ol style="list-style-type: none">1. Ataxia2. Nystagmus3. ophthalmoplegia

Diagnostic tests:

- EEG (typically slowing of waves)
- Neuroimaging tests may be abnormal
- Neuropsychiatric tests may be abnormal

Differential Diagnosis

1. Delirium: delirium is fluctuating with disturbed level of consciousness (e.g. disorientation to time, place, and person).
2. Dementia: (insidious onset, progressive deterioration, impaired language and or impaired praxis).

3. Dissociative amnesia: more likely to have lost their orientation to self and may have more selective memory deficits than do patients with amnesic disorders. For example, patients with dissociative disorders may not know their names or home addresses, but they are still able to learn new information and remember selected past memories. Dissociative disorders are also often associated with emotionally stressful life events involving money, the legal system, or troubled relationships.
4. Factitious Disorders: Patients with factitious disorders who are mimicking an amnesic disorder often have inconsistent results on memory tests and have no evidence of an identifiable cause. These findings, coupled with evidence of primary or secondary gain for a patient, should suggest a factitious disorder.

Treatment

The primary approach to treating amnesic disorders is to treat the underlying cause (e.g. giving thiamine to korsakoff-wernicke)

DELIRIUM (ACUTE CONFUSIONAL STATE)


Delirium is defined by the acute onset of fluctuating cognitive impairment and a disturbance of consciousness. Delirium is underrecognized by health care workers.

Epidemiology

Delirium is very common. It affects 30% of older hospital inpatients either at admission or during it. It is associated with high rates of mortality and complications (poor prognostic sign).

Etiology (see Fig 7.3 for causes and investigations)

The major causes of delirium are CNS disease (e.g., epilepsy), systemic disease (e.g., cardiac failure), and either intoxication or withdrawal from pharmacological or toxic agents. When evaluating patients with delirium, clinicians should assume that any drug that a patient has taken may be etiologically relevant to the delirium.

 7.10 Risk factors for delirium	
• Old age	• Severe physical illness
• Dementia	• Frailty
• Admission with infection or dehydration	• Visual impairment
• Surgery, e.g. hip fracture repair	• Polypharmacy
• Alcohol misuse	• Renal impairment

Diagnosis and Clinical Features (Medical FRAT)

Criteria (all of those):

1. Medical cause of cognitive impairment
2. Fluctuating course
3. Recent onset
4. Attention impairment
5. Thinking (orientation and perception) disturbance

Delusions can occur (paranoid). Illusions can occur. The patient usually pulls out the I.V. lines or catheters. Patient's condition is worst at the night and sometimes become aggressive.

Causes and investigations

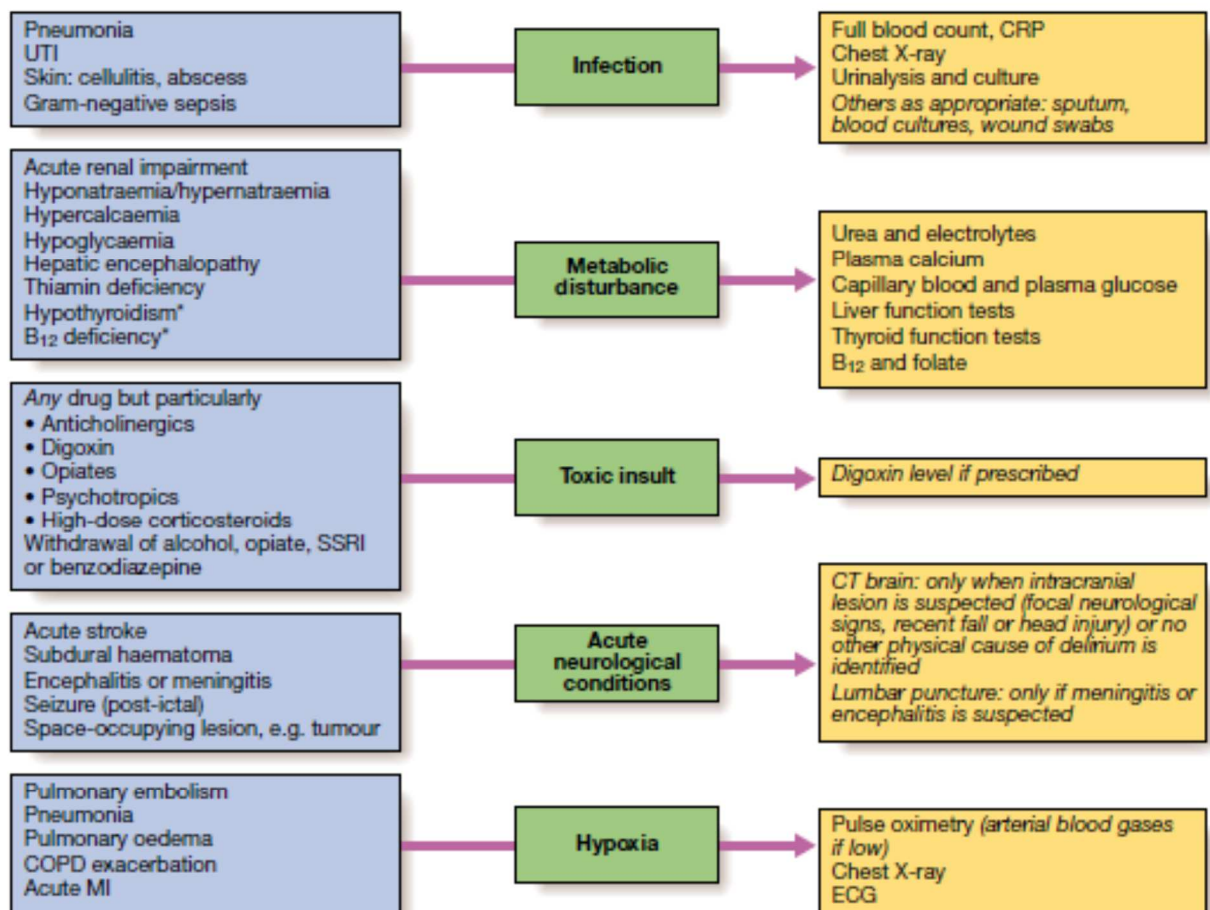


Fig. 7.3 Common causes and investigation of delirium. All investigations are performed routinely, except those in italics.* Tend to present over weeks to months rather than hours to days. (COPD = chronic obstructive pulmonary disease; CRP = C-reactive protein; MI = myocardial infarction; SSRI = selective serotonin re-uptake inhibitor; UTI = urinary tract infection)

Differential Diagnosis: delirium can be differentiated from dementia, schizophrenia, and depression by its course (fluctuating), and sometimes by EEG.

Treatment

1. Treat the underlying cause.
2. Environmental support (good light in the room even in the night, calendar, and regular orientation).
3. Haloperidol in low dose (for agitation and psychosis).
4. In delirium tremens (alcohol withdrawal): use long-acting benzodiazepams.
5. If the patient has vision or hearing aids he should wear them. Delirium can sometimes occur in older patients wearing eye patches after cataract surgery (black-patch delirium).

References:

Kaplan Lectures from youtube.com for Amnestic disorder

Davidson's for Delirium

Learning Theory

Typical Board Question

A 44-year-old woman has undergone three sessions of chemotherapy in a hospital. Each session has resulted in nausea. Before the fourth session, the patient becomes nauseated when she enters the hospital lobby. This patient's reaction is a result of the type of learning best described as

- (A) operant conditioning
- (B) classical conditioning
- (C) modeling
- (D) shaping
- (E) extinction

(See "Answers and Explanations" at end of chapter.)

I. OVERVIEW

- A. Learning is the acquisition of new behavior patterns.
- B. Methods of learning include simple forms, such as **habituation** and **sensitization**, and more complex types, including **classical conditioning** and **operant conditioning**.
- C. Learning methods are the basis of **behavioral treatment techniques**, such as systematic desensitization, aversive conditioning, flooding, biofeedback, token economy, and cognitive therapy (see Chapter 17).

II. HABITUATION AND SENSITIZATION

- A. In **habituation** (also called desensitization), repeated stimulation results in a decreased response (e.g., a child who receives weekly allergy injections cries less and less with each injection).
- B. In **sensitization**, repeated stimulation results in an increased response (e.g., a child who is afraid of spiders feels more anxiety each time he encounters a spider).

III. CLASSICAL CONDITIONING

A. Principles. In classical conditioning, a **natural** or **reflexive response** (behavior) is elicited by a **learned stimulus** (a cue from an internal or external event). This type of learning is called **associative learning**.

1. The **hippocampus** is particularly important in associative learning.
2. The **cerebellum** participates in classical conditioning, specifically in associations involving motor skills.

B. Elements of classical conditioning

1. An **unconditioned stimulus** is something that automatically, without having to be learned, produces a response (e.g., the odor of food).
2. An **unconditioned response** is a natural, reflexive behavior that does not have to be learned (e.g., salivation in response to the odor of food).
3. A **conditioned stimulus** is something that produces a response following learning (e.g., the sound of the lunch bell).
4. A **conditioned response** is a behavior that is learned by an association made between a conditioned stimulus and an unconditioned stimulus (e.g., salivation in response to the lunch bell).

C. Response acquisition, extinction, and stimulus generalization

1. In **acquisition**, the conditioned response (e.g., salivation in response to the lunch bell) is learned.
2. In **extinction**, the conditioned response decreases if the conditioned stimulus (e.g., the sound of the lunch bell) is never again paired with the unconditioned stimulus (e.g., the odor of food).
3. In **stimulus generalization**, a new stimulus (e.g., a church bell) that resembles a conditioned stimulus (e.g., the lunch bell) causes a conditioned response (e.g., salivation).

D. Aversive conditioning. An unwanted behavior (e.g., setting fires) is paired with a painful or aversive stimulus (e.g., a painful electric shock). An association is created between the unwanted behavior (fire-setting) and the aversive stimulus (pain) and the fire-setting ceases.

E. Learned helplessness

1. An animal receives a series of painful electric shocks from which it is **unable to escape**.
2. By classical conditioning, the animal learns that there is an association between an aversive stimulus (e.g., painful electric shock) and the inability to escape.
3. Subsequently, the animal makes no attempt to escape when shocked or when faced with any new aversive stimulus; instead, the animal becomes **hopeless and apathetic**.
4. Learned helplessness in animals may be a model system for **depression** (often characterized by hopelessness and apathy) in humans.
5. Antidepressant treatment increases escape attempts in animal models.

F. Imprinting is the tendency of organisms to make an association with and then follow the first thing they see after birth or hatching (in birds).

IV. OPERANT CONDITIONING

A. Principles

1. Behavior is determined by its consequences for the individual. The consequence (reinforcement or punishment) occurs immediately following a behavior.
2. In operant conditioning, a behavior that is **not part of the individual's natural repertoire** can be learned through reinforcement.

table 7.1 Features of Operant Conditioning

Example: A mother would like her 8-yr-old son to stop hitting his 6-yr-old brother. She can achieve this goal by using one of the following features of operant conditioning.

Feature	Effect on Behavior	Example	Comments
Positive reinforcement	Behavior is increased by reward	Child increases his kind behavior toward his younger brother to get praise from his mother	Reward or reinforcement (praise) increases desired behavior (kindness toward brother) A reward can be praise or attention as well as a tangible reward like money
Negative reinforcement	Behavior is increased by avoidance or escape	Child increases his kind behavior toward his younger brother to avoid being scolded	Active avoidance of an aversive stimulus (being scolded) increases desired behavior (kindness toward brother)
Punishment	Behavior is decreased by suppression	Child decreases his hitting behavior after his mother scolds him	Delivery of an aversive stimulus (scolding) decreases unwanted behavior (hitting brother) rapidly but not permanently
Extinction	Behavior is eliminated by non-reinforcement	Child stops his hitting behavior when the behavior is ignored	Extinction is more effective than punishment for long-term reduction in unwanted behavior There may be an initial increase in hitting behavior before it disappears

B. Features

- The likelihood that a **behavior** will occur is **increased by positive or negative reinforcement** and **decreased by punishment or extinction** (Table 7.1).
 - Types of reinforcement include:
 - Positive reinforcement** (reward) is the introduction of a positive stimulus that results in an increase in the rate of behavior.
 - Negative reinforcement** (escape) is the removal of an aversive stimulus that also results in an increase in the rate of behavior.
 - Punishment** is the introduction of an aversive stimulus aimed at reducing the rate of an unwanted behavior.
- Extinction** in operant conditioning is the gradual disappearance of a learned behavior when reinforcement (reward) is withheld.
 - The pattern, or **schedule, of reinforcement** affects how quickly a behavior is learned and how quickly a behavior becomes extinguished when it is not rewarded (Table 7.2).

table 7.2 Schedules of Reinforcement

Schedule	Reinforcement	Example	Effect on Behavior
Continuous	Presented after every response	A teenager receives a candy bar each time she puts a dollar into a vending machine. One time she puts a dollar in and nothing comes out. She never buys candy from the machine again	Behavior (putting in a dollar to receive candy) is rapidly learned but disappears rapidly (has little resistance to extinction) when not reinforced (no candy comes out)
Fixed ratio	Presented after a designated number of responses	A man is paid \$10 for every five hats he makes. He makes as many hats as he can during his shift	Fast response rate (many hats are made quickly)
Fixed interval	Presented after a designated amount of time	A student has an anatomy quiz every Friday. He studies for 10 min on Wednesday nights, and for 2 h on Thursday nights	The response rate (studying) increases toward the end of each interval (1 wk) When graphed, the response rate forms a scalloped curve
Variable ratio	Presented after a random and unpredictable number of responses	After a slot machine pays off \$5 for a single quarter, a woman plays \$50 in quarters despite the fact that she receives no further payoffs	The behavior (playing the slot machine) continues (is highly resistant to extinction) despite the fact that it is only reinforced (winning money) after a large but variable number of responses
Variable interval	Presented after a random and unpredictable amount of time	After 5 min of fishing in a lake, a man catches a large fish. He then spends 4 h waiting for another bite	The behavior (fishing) continues (is highly resistant to extinction) despite the fact that it is only reinforced (a fish is caught) after varying time intervals

b. **Resistance to extinction** is the force that prevents the behavior from disappearing when a reward is withheld.

C. Shaping and modeling

1. **Shaping** involves rewarding closer and closer approximations of the wanted behavior until the correct behavior is achieved (e.g., a child learning to write is praised when she makes a letter, even though it is not formed perfectly).
2. **Modeling** is a type of observational learning (e.g., an individual behaves in a manner similar to that of someone she admires).

SOMATIC SYMPTOM DISORDERS

They are a broad group of illnesses that have bodily signs and symptoms as a major component. The prevalence rates differ across countries and times. It is generally believed that their prevalence is decreasing in developed countries. In one retrospective study in Mosul which studied the files of 5 years of admission the rate of somatic symptom disorders was found consistent with figures in UK before 1950 ⁽¹⁾.

Psychiatry Lecture 5th year Medical college / Mustansiriyah University

Dr. Sami Adil Al-Bedri/ Psychiatrist

22nd November 2015

In a study about the use of traditional and spiritual healers it was found that 35.1% of the cases who go to those healers were complaining of somatoform disorders, while 24.8% of the cases were having schizophrenic disorders ⁽²⁾.

There is no FDA approved drug for any of the somatic symptom disorders.

Somatic symptom disorders according to DSM 5 are:

1. Somatic Symptom Disorder

One or more physical symptoms that are distressing or functionally impairing. Excessive and disproportionate thoughts, feelings, and behaviors about somatic symptom(s). Essential feature is somatic symptom burden. It may be present with or without medical diagnoses.

Epidemiology: see the paragraph in the introduction above taken from reference no. 1

Etiology:

1. Low thresholds for, and low tolerance of, physical discomfort. They misinterpret bodily sensations, and become alarmed by them because of a faulty cognitive scheme.
2. When faced with problems the patient might want to play the sick role.
3. A variant of other mental disorder (depression, or anxiety).
4. The psychodynamic school: aggressive wishes toward others are transferred (by repression and displacement) into physical complaints.

Diagnosis:

A false belief, not to the degree of delusion, that they have serious illness based on misinterpretation of physical signs or sensations. The belief must last at least 6 months despite the absence of pathological findings. This should not be restricted to distress about appearance.

Specify if: with predominant pain.

Ddx.:

1. Medical illnesses that are difficult to diagnose (e.g. endocrinopathies, MD, occult neoplastic disorders)
2. Illness anxiety disorder in which there is no symptom, but only the fear.
3. Conversion disorder is acute and neurological, and the patient is not concerned about being ill (la belle indifference).
4. Body dysmorphic disorder.
5. Mood disorders (depression).
6. Anxiety disorders (panic).
7. Psychotic disorders.
8. Malingering and factitious disorders.

Treatment

Is best treated when the patient has a single identified physician who see patients during regularly scheduled visits, usually at monthly intervals. At the end of each visit it is better to put a fixed date to the next visit. Patients can develop real physical illnesses

Psychotherapy: insight-oriented, cognitive behavioral, and group psychotherapy all can be helpful. Hypnosis is also helpful sometimes. See the note in the introduction about spiritual healers.

Medication must be monitored, because patients with somatization disorder tend to use drugs erratically and unreliably.

2. Illness Anxiety Disorder

Persistent, excessive thoughts and feelings about having a serious physical illness; not reassured. Few or no somatic symptoms. Essential feature is preoccupation with being ill. It may be present with or without medical diagnoses.

Epidemiology: mostly unknown.

Etiology: similar to etiology of somatic symptom disorder.

Dx. the belief must last at least 6 months. No physical findings. Not delusional, not body dysmorphic disorder. Causes distress and/or dysfunction.

Ddx:

- (i) Other somatic symptom disorder
- (ii) Mood disorders
- (iii) Anxiety disorder

(iv) Psychotic disorder

(v) OCD

Tr. As for somatic symptom disorder.

3. Functional Neurological Symptom Disorder (Conversion Disorder)

Usually occurs acutely after stress, then resolves within 2 weeks. The sx resemble neurological symptoms (either sensory, motor, seizure, or mixed; see DSM-5 criteria below) not limited to pain or sexual disorder. Not intentionally produced. It may be present with or without medical diagnoses.

Previously known as hysteria.

Epidemiology: see the paragraph in the introduction above taken from reference no. 1. Two to 10 times more common in females. More common in the left side of the body. The onset of conversion disorder is rare before 10 years of age or after 35 years of age. It is most common among rural populations, persons with little education, those with low intelligence quotients, those in low socioeconomic groups, and military personnel who have been exposed to combat situations.

Etiology:

Previous experience (such as childhood abuse) is a predisposing factor, psychological or physical trauma is a precipitating factor, and special rewards for disability a perpetuating factor. Brain-imaging studies have found hypometabolism of the dominant hemisphere and hypermetabolism of the nondominant hemisphere and have implicated impaired hemispheric communication in the cause of conversion disorder.

Clinical Features:

Paralysis, blindness, and mutism are the most common conversion disorder symptoms.

Sensory Symptoms: In conversion disorder, anesthesia and paresthesia are common, especially of the extremities. All senses can be involved.

Motor Symptoms: The motor symptoms of conversion disorder include abnormal movements, gait disturbance, weakness, and paralysis. The movements generally worsen when attention is called to them.

Other common motor disturbances are paralysis and paresis involving one, two, or all four limbs, although the distribution of the involved muscles does not conform to the neural pathways. Reflexes remain normal; the patients have no fasciculations or muscle atrophy (except after long-standing conversion paralysis); electromyography findings are normal.

Seizure Symptoms: Pseudoseizures are another symptom in conversion disorder. Clinicians may find it difficult to differentiate a pseudoseizure from an actual seizure by clinical observation

alone. Moreover, about one third of the patient's pseudoseizures also have a coexisting epileptic disorder. Tongue-biting, urinary incontinence, and injuries after falling can occur in pseudoseizures, although these symptoms are generally not present. Patients have no postseizure increase in prolactin (15-30 minutes) nor in neuron-specific enolase (1-2 days).

Primary and secondary gain: patients achieve primary gain by keeping internal conflicts outside their awareness. And the secondary gain is that they will have benefits of being sick.

La belle indifference: is a patient's unconcerned about their major impairment. It is not pathognomonic.

Physical examination help in the diagnosis:

- Anesthesia --- examine dermatomes.
- Paralysis leg --- Hoover test (with the patient lying in bed put your hand below the paralysed leg and asked to move the normal leg up, you will feel the paralysed leg pressing your hand down against the bed) This test help in diagnosing not only conversion but also factitious and malingering disorders.
- Aphonia --- ask to cough (real aphonia cannot cough).
- Coma --- resisting eye opening + Ocular cephalic manoevers.

Remember when doing these examinations to a patient with conversion we are not trying to make the patient looks like a liar or cheater. We must try to not hurt the patient's dignity **كرامة**.

Differential Diagnosis:

1. Neurological or medical disorders: An estimated 25 to 50 percent of patients classified as having conversion disorder eventually receive diagnoses of neurological or nonpsychiatric medical disorders that could have caused their earlier symptoms. Thus, a thorough medical and neurological workup is essential in all cases. If the symptoms can be resolved by suggestion, hypnosis, or parenteral amobarbital or lorazepam, they are probably the result of conversion disorder.

Neurological disorders (e.g., dementia and other degenerative diseases), brain tumors, and basal ganglia disease must be considered in the differential diagnosis. For example, weakness may be confused with myasthenia gravis, polymyositis, acquired myopathies, guillian-barre or MS. Optic neuritis may be misdiagnosed as conversion disorder blindness.

2. Other somatic symptom disorder.
3. In both malingering and factitious disorder, the symptoms are under conscious, voluntary control.

Course and Prognosis: The onset of conversion disorder is usually acute. Symptoms or deficits are usually of short duration, and approximately 95 percent of acute cases remit spontaneously, usually within 2 weeks in hospitalized patients.

Treatment: Resolution of the conversion disorder symptom is usually spontaneous. There are few trials to guide our treatment of conversion disorder. Treatments that have been suggested include simple encouragement, hypnosis, abreaction (in which the person is encouraged to talk about the traumatic even, often under sedation), and a variety of other means.

See the note about spiritual healer in Iraq in the introduction.

The use of brief electrical stimulation to the limbs has been reported to be used in the treatment in Iraq⁽³⁾.

In my opinion, sometimes the conversion cases are met with negative attitude by the medical staff and receive some punitive treatments like the painful I.M. normal saline injection, or injections of furosemide (Lasix) and this is unethical.

Refereces:

1. H. Najim, D. J. Al-Habbo, K.O. Sultan. Trends of admissions of somatoform disorder in Mosul Iraq. *European Psychiatry* 23 (2008) S192-S303
2. Saadoun D. A. Al-Jiboori. The Frequency of Psychiatric Patients Using Traditional and Spiritual Medicine. *Tikrit Medical Journal* 2007; 13(2):9-15
3. Tarik I. Hamdi., L. Al-Hasani, A. Mahmood, and A. Al-Husaini. *Brit. J.Psychiat.* (1981), 138, 177-814. Corresponds: Hysteria: a large series in Iraq.

Note: The main information are taken from Kaplan and Saddock (2014), *The Little Black Book of Psychiatry* (2006), oxford handbook of psychiatry (2009), and companion to psychiatric studies (2005).

PSYCHOLOGICAL FACTORS AFFECTING OTHER MEDICAL CONDITIONS

It was previously believed that mind and body are two different units (called Cartesian dichotomy), but now it is believed that mind and body are one unit, hence psychological factors must be taken into account when considering all disease states. And medicine started stressing the importance of treating the whole patient not just his or her illness (holistic medicine).

In this lecture we would refer to stress, and the link between life event and body reactions, but since we have already discussed this issue, we will pass it.

Medically Unexplained Symptoms (MUS)

Patients with MUS may receive a medical dx of a so-called functional somatic syndrome, such as irritable bowel syndrome (IBS), and may also merit a psychiatric dx on the basis of the same symptoms. The most frequent psychiatric dx associated with MUS are anxiety or depressive disorders. When these are absent, a diagnosis of somatic symptom disorders may be appropriate.

Psychiatry lecture/ 5th year/ medical college- Al Mustansiriya Universtiy

Monday 22nd nov. 2015 Dr. Sami Adil



10.10 Functional somatic syndromes

- Gastroenterology: irritable bowel syndrome, functional dyspepsia
- Gynaecology: premenstrual syndrome, chronic pelvic pain
- Rheumatology: fibromyalgia
- Cardiology: atypical or non-cardiac chest pain
- Respiratory medicine: hyperventilation syndrome
- Infectious diseases: chronic (post-viral) fatigue syndrome
- Neurology: tension headache, non-epileptic attacks
- Dentistry: temporomandibular joint dysfunction, atypical facial pain
- Ear, nose and throat: globus syndrome
- Allergy: multiple chemical sensitivity

EBM 10.26 Antidepressants for medically unexplained somatic symptoms

'There is evidence for the efficacy of antidepressant drugs for patients with medically unexplained symptoms.'

- Sumathipala A. Psychosom Med 2007; 69:889–900.

Psychiatry and functional somatic syndromes:

IBS: TCAs (amitriptyline or imipramine) reduce gastric motility, and hence are regarded as secondary choice in the treatment of IBS with diarrhea. Duloxetine, relaxation therapy, biofeedback, and hypnotherapy are all the last choice for all the three subtypes of IBS.

Coronary disease: some trials of type A behavior modification have shown some benefits. The discussion of the role of stress with those patient helps them understand their diseases.

When measuring B.P. we should always put in our minds the possibility of white coat hypertension.

Respiratory: don't forget panic disorder, and hyperventilation syndrome.

Skin disorders: excoriation, trichotillomania, and delusions of infestations are not rare to be seen in dermatology clinics.

Endocrine: mood disturbance, and psychotic symptoms are seen.

Rheumatology: for the dx. of fibromyalgia, antidepressants, especially sertraline, have shown encouraging results.

Most headache are not associated with significant organic disease. SSRI useful for prophylaxis of migraine. Tension headache antianxiety measures.

Factitious disorder

This describes the repeated and deliberate production of the signs or symptoms of disease to obtain medical care. It is uncommon. An example is the dipping of thermometers into hot drinks to fake a fever. The disorder feigned is usually medical but can be a psychiatric illness, with false reports of hallucinations or symptoms of depression.

Münchausen's syndrome

This refers to a severe chronic form of factitious disorder. Patients are usually older and male, sometimes visiting several hospitals in one day. The history can be convincing enough to persuade doctors to undertake investigations or initiate treatment, including exploratory surgery. Some emergency departments hold lists of such patients. Management is by gentle but firm confrontation with clear evidence of the fabrication of illness, together with an offer of psychological support. Treatment is usually declined but recognition of the condition may help to avoid further iatrogenic harm.

Malingering

Malingering is a description of behaviour, not a psychiatric diagnosis. It refers to the deliberate and conscious simulation of signs of disease and disability. Patients have motives that are clear to them but which they conceal from doctors. Examples include the avoidance of burdensome responsibilities (such as work or court appearances) or the pursuit of financial gain.

Psychoanalytic Theory and Defense Mechanisms

Typical Board Question

When a 27-year-old patient who had a contentious relationship with his father joins a new health insurance plan, he must change from his primary care physician, a young man, to a new physician, a middle-aged man. On his first visit to the new doctor, the patient seems annoyed with everything the doctor says and states, “You are an old man with old-fashioned ideas; you just want to control my life.” This patient’s behavior is most closely related to which of the following?

- (A) Positive transference
- (B) Negative transference
- (C) Countertransference
- (D) Dislike of the doctor
- (E) Fear of the doctor

(See “Answers and Explanations” at end of chapter.)

I. OVERVIEW

Psychoanalytic theory is based on Freud’s concept that behavior is determined by forces derived from unconscious mental processes. Psychoanalysis and related therapies are psychotherapeutic treatments based on this concept (see Chapter 17).

II. FREUD’S THEORIES OF THE MIND

To explain his ideas, Freud developed, early in his career, the topographic theory of the mind and, later in his career, the structural theory.

A. Topographic theory of the mind. In the topographic theory, the mind contains three levels: The unconscious, preconscious, and conscious.

1. The **unconscious mind** contains repressed thoughts and feelings that are not available to the conscious mind, and uses primary process thinking.
 - a. **Primary process** is a type of thinking associated with primitive drives, wish fulfillment, and pleasure seeking, and has no logic or concept of time. Primary process thinking is seen in young children and psychotic adults.
 - b. **Dreams** represent gratification of unconscious instinctive impulses and wish fulfillment.

table 6.1 Freud's Structural Theory of the Mind

Structural Component	Topographic Level of Operation	Age at which it Develops	Characteristics
Id	Unconscious	Present at birth	Contains instinctive sexual and aggressive drives Controlled by primary process thinking Not influenced by external reality
Ego	Unconscious, preconscious, and conscious	Begins to develop immediately after birth	Controls the expression of the id to adapt to the requirements of the external world primarily by the use of defense mechanisms Enables one to sustain satisfying interpersonal relationships Through reality testing (i.e., constantly evaluating what is valid and then adapting to that reality), enables one to maintain a sense of reality about the body and the external world
Superego	Unconscious, preconscious, and conscious	Begins to develop by about 6 yrs of age	Associated with moral values and conscience Controls the expression of the id

2. The **preconscious mind** contains memories that, while not immediately available, can be accessed easily.
3. The **conscious mind** contains thoughts that a person is currently aware of. It operates in close conjunction with the preconscious mind but does not have access to the unconscious mind. The conscious mind uses secondary process thinking (logical, mature, time-oriented) and can delay gratification.

B. Structural theory of the mind. In the structural theory, the mind contains three parts: The id, the ego, and the superego (Table 6.1).

III. DEFENSE MECHANISMS

A. Definition. Defense mechanisms are **unconscious mental techniques** used by the ego to keep conflicts out of the conscious mind, thus decreasing anxiety and maintaining a person's sense of safety, equilibrium, and self-esteem. They can be useful in helping people deal with difficult life situations such as medical illness, but, when used to excess, can become a barrier to seeking care or adhering to treatment recommendations.

B. Specific defense mechanisms (Table 6.2)

1. Some defense mechanisms are **immature** (i.e., they are manifestations of childlike or disturbed behavior).
2. **Mature defense mechanisms** (e.g., altruism, humor, sublimation, and suppression), when used in moderation, directly help the patient or others.
3. **Repression**, pushing unacceptable emotions into the unconscious, is the **basic defense mechanism** on which all others are based.

IV. TRANSFERENCE REACTIONS

A. Definition. Transference and countertransference are **unconscious mental attitudes** based on important past personal relationships (e.g., with parents). These phenomena increase emotionality and may thus alter judgment and behavior in patients' relationships with their doctors (transference) and doctors' relationships with their patients (countertransference).

table 6.2 Commonly Used Defense Mechanisms (Listed Alphabetically)

Defense Mechanism	Explanation	Example
Acting out	Avoiding personally unacceptable emotions by behaving in an attention-getting, often socially inappropriate manner	A depressed 14-yr-old girl with no history of conduct disorder has sexual encounters with multiple partners after her parents' divorce
Altruism ^a	Assisting others to avoid negative personal feelings	A man with a poor self-image, who is a social worker during the week, donates every other weekend to charity work
Denial	Not accepting aspects of reality that the person finds unbearable	An alcoholic insists that he is only a social drinker
Displacement	Moving emotions from a personally intolerable situation to one that is personally tolerable	A surgeon with unacknowledged anger toward his sister is abrasive to the female residents on his service
Dissociation	Mentally separating part of one's consciousness from real life events or mentally distancing oneself from others	Although he was not injured, a teenager has no memory of a car accident in which he was driving and his girlfriend was killed
Humor ^a	Expressing personally uncomfortable feelings without causing emotional discomfort	A man who is concerned about his erectile problems makes jokes about Viagra (sildenafil citrate)
Identification (introjection)	Unconsciously patterning one's behavior after that of someone more powerful (can be either positive or negative)	A man who was terrorized by his gym teacher as a child becomes a punitive, critical gym teacher (identification with the aggressor)
Intellectualization	Using the mind's higher functions to avoid experiencing emotion	A sailor whose boat is about to sink calmly explains the technical aspects of the hull damage in great detail to the other crew members
Isolation of affect	Failing to experience the feelings associated with a stressful life event, although logically understanding the significance of the event	Without showing any emotion, a woman tells her family the results of tests that indicate her lung cancer has metastasized
Projection	Attributing one's own personally unacceptable feelings to others Associated with paranoid symptoms and prejudice	A man with unconscious homosexual impulses begins to believe that a male colleague is attracted to him
Rationalization	Distorting one's perception of an event so that its negative outcome seems reasonable	A man who loses an arm in an accident says the loss of his arm was good because it kept him from getting in trouble with the law
Reaction formation	Adopting opposite attitudes to avoid personally unacceptable emotions, i.e., unconscious hypocrisy	A woman who unconsciously is resentful of the responsibilities of child rearing overspends on expensive gifts and clothing for her children
Regression	Reverting to behavior patterns like those seen in someone of a younger age	A woman insists that her husband stay overnight in the hospital with her before surgery
Splitting	Categorizing people or situations into categories of either "fabulous" or "dreadful" because of intolerance of ambiguity Seen in patients with borderline personality disorder	A patient tells the doctor that while all of the doctors in the group practice are wonderful, all of the nurses and office help are unfriendly and curt
Sublimation ^a	Expressing a personally unacceptable feeling (e.g., rage) in a socially useful way	A man who got into fights as a teenager becomes a professional prize fighter
Suppression ^a	Deliberately pushing personally unacceptable emotions out of conscious awareness (the only defense mechanism that includes some aspect of consciousness)	A medical student taking a review course for the United States Medical Licensing Examination mentally changes the subject when her mind wanders to the exam during a lecture
Undoing	Believing that one can magically reverse past events caused by "incorrect" behavior by now adopting "correct" behavior, e.g., atonement, confession, or penance	A woman who stole money from a friend, confesses to the theft, returns the money, and then feels compelled to offer to drive the friend to and from work for a year

^a"Mature" defense mechanisms.Adapted from Fadem B. *Behavioral Science in Medicine*. 2nd ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2012:83.

B. Transference

1. In **positive transference**, the patient has confidence in the doctor. If intense, the patient may over-idealize the doctor or develop sexual feelings toward the doctor.
2. In **negative transference**, the patient may become resentful or angry toward the doctor if the patient's desires and expectations are not realized. This may lead to poor adherence to medical advice.

- C. In countertransference**, feelings about a patient who reminds the doctor of a close friend or relative can interfere with the doctor's medical judgment.

Typical Board Question

A 5-year-old child, who, at age 2 years was playing with a large dog when a ceiling tile fell on her head, is now so afraid of dogs that she refuses to go to the park because dogs are there. Medical examination is unremarkable and the child's motor, social, and cognitive development are typical for her age. To manage the child's fear of dogs, the physician first recommends that her father carry a small toy dog very gradually toward her while she is listening to her favorite CD. Which of the following psychological therapies does this example illustrate?

- (A) Implosion
- (B) Biofeedback
- (C) Aversive conditioning
- (D) Token economy
- (E) Flooding
- (F) Systematic desensitization
- (G) Cognitive/behavioral therapy

(See "Answers and Explanations" at end of chapter.)

I. PSYCHOANALYSIS AND RELATED THERAPIES

A. Overview

1. Psychoanalysis and related therapies (e.g., psychoanalytically oriented psychotherapy, brief dynamic psychotherapy) are psychotherapeutic treatments based on Freud's concepts of the **unconscious mind**, **defense mechanisms**, and **transference reactions** (see Chapter 6).
2. The central strategy of these therapies is to **uncover experiences** that are **repressed in the unconscious mind** and integrate them into the person's conscious mind and personality.

B. Techniques used to recover repressed experiences include:

1. **Free association**
 - a. In psychoanalysis, the person **lies on a couch** in a reclined position facing away from the therapist and says whatever comes to mind (free association).
 - b. In therapies related to psychoanalysis, the person sits in a chair and talks while facing the therapist.
2. **Interpretation of dreams** is used to examine unconscious conflicts and impulses.
3. **Analysis of transference reactions** (i.e., the person's unconscious responses to the therapist) is used to examine important past relationships (see Chapter 6).

C. People who are appropriate for using psychoanalysis and related therapies should have the following characteristics:

1. Are younger than 40 years of age.

2. Are intelligent and not psychotic.
 3. Have good relationships with others (e.g., no evidence of antisocial or borderline personality disorder).
 4. Have a stable life situation (e.g., not be in the midst of divorce).
 5. Have the time and money to spend on treatment.
- D. In **psychoanalysis**, people receive treatment **4–5 times weekly for 3–4 years**; related therapies are briefer and more direct (e.g., brief dynamic psychotherapy is limited to 12–40 weekly sessions).

II. BEHAVIORAL THERAPIES

- A. Behavioral therapies are based on **learning theory** (see Chapter 7), that is, symptoms are relieved by unlearning maladaptive behavior patterns and altering negative thinking patterns.
- B. In contrast to psychoanalysis and related therapies, the person’s history and **unconscious conflicts are irrelevant**, and thus are not examined in behavioral therapies.
- C. Characteristics of specific behavioral therapies (e.g., systematic desensitization, aversive conditioning, flooding and implosion, token economy, biofeedback, and cognitive/behavioral therapy) can be found in Table 17.1.

table 17.1 Behavioral Therapies: Uses and Strategies

Most Common Use	Strategy
<p>Systematic Desensitization Management of phobias (irrational fears; see Chapter 13)</p>	<p>In the past, through the process of classical conditioning (see Chapter 7), the person associated an innocuous object with a fear-provoking stimulus until the innocuous object became frightening In the present, increasing doses of the fear-provoking stimulus are paired with a relaxing stimulus to induce a relaxation response Because one cannot simultaneously be fearful and relaxed (reciprocal inhibition), the person shows less anxiety when exposed to the fear-provoking stimulus in the future</p>
<p>Aversive Conditioning Management of paraphilias (e.g., pedophilia) or addictions (e.g., smoking)</p>	<p>Classical conditioning is used to pair a maladaptive but pleasurable stimulus with an aversive or painful stimulus (e.g., a shock) so that the two become associated The person ultimately stops engaging in the maladaptive behavior because it automatically provokes an unpleasant response</p>
<p>Flooding and Implosion Management of phobias</p>	<p>The person is exposed to an actual (flooding) or imagined (implosion) overwhelming dose of the feared stimulus Through the process of habituation (see Chapter 7) the person becomes accustomed to the stimulus and is no longer afraid</p>
<p>Token Economy To increase positive behavior in a person who is severely disorganized (e.g., psychotic), autistic, or mentally retarded</p>	<p>Through the process of operant conditioning (see Chapter 7), desirable behavior (e.g., shaving, hair combing) is reinforced by a reward or positive reinforcement (e.g., the token) The person increases the desirable behavior to gain the reward</p>
<p>Biofeedback To manage hypertension, Raynaud disease, migraine and tension headaches, chronic pain, fecal incontinence, and temporomandibular joint pain</p>	<p>Through the process of operant conditioning, the person is given ongoing physiologic information (e.g., blood pressure measurement), which acts as reinforcement (e.g., when blood pressure drops) The person uses this information along with relaxation techniques to control visceral changes (e.g., heart rate, blood pressure, smooth muscle tone)</p>
<p>Cognitive/Behavioral Therapy To manage mild to moderate depression, somatoform disorders, eating disorders</p>	<p>Weekly, for 15–25 wks, the person is helped to identify distorted, negative thoughts about him- or herself The person replaces these negative thoughts with positive, self-assuring thoughts and symptoms improve</p>

III. OTHER THERAPIES

Other therapies include group, family, marital/couples, supportive and interpersonal therapy as well as stress management techniques. Specific uses of these therapies can be found in Table 17.2.

A. Group therapy

1. Groups with therapists

- a. Groups of about eight people with a common problem or negative life experience usually meet weekly for 1–2 hours; sharing the therapist reduces cost.
- b. Members of the group provide the opportunity to express feelings as well as **feedback, support, and friendship** to each other.
- c. **The therapist has little input.** He or she facilitates and observes the members' interpersonal interactions.

2. Leaderless groups

- a. In a leaderless group, **no one person is in authority.**
- b. Members of the group provide each other with **support and practical help** for a shared problem (e.g., alcoholism, loss of a loved one, a specific illness).
- c. Twelve-step groups like **Narcotics Anonymous (NA)** and **Overeaters Anonymous (OA)** are based on the **Alcoholics Anonymous (AA)** leaderless group model (see Chapter 9).

B. Family therapy

1. Family systems theory

- a. Family therapy is based on the family systems idea that psychopathology in one family member (i.e., the identified patient) reflects **dysfunction of the entire family system.**
- b. Because all members of the family cause behavioral changes in other members, **the family (not the identified patient) is really the patient.**
- c. **Strategies** of family therapy include identifying **dyads** (i.e., subsystems between two family members), **triangles** (i.e., dysfunctional alliances between two family members against a third member), and **boundaries** (i.e., barriers between subsystems) that may be too rigid or too permeable.

2. Specific techniques are used in family therapy.

- a. **Mutual accommodation** is encouraged. This is a process in which family members work toward meeting each other's needs.
- b. **Normalizing boundaries** between subsystems and reducing the likelihood of triangles is encouraged.

table 17.2 Uses of Group, Family, Marital/Couples, Supportive, Interpersonal, and Stress Management Therapies

Type of Therapy	Targeted Population
Group therapy	People with a common problem (e.g., rape victims) People with personality disorders or other interpersonal problems People who have trouble interacting with therapists as authority figures in individual therapy
Family therapy	Children with behavioral problems Families in conflict People with eating disorders or substance abuse
Marital/couples therapy	Domestic partners with communication or psychosexual problems Domestic partners with differences in values
Supportive therapy	People who are experiencing a life crisis Chronically mentally ill people dealing with ordinary life situations
Interpersonal therapy	People with emotional difficulties owing to problems with interpersonal skills
Stress management	People with anxiety disorders or stress-related illnesses (e.g., headaches, hypertension)

c. **Redefining “blame”** (i.e., encouraging family members to reconsider their own responsibility for problems) is another important technique.

C. Supportive and interpersonal therapy

1. Supportive therapy is aimed not at insight into problems, but rather at helping people feel protected and supported during life crises (e.g., serious illness of a loved one). For **people** with chronic mental illnesses, supportive therapy may be used over many years along with medication.
2. Based on the idea that psychiatric problems such as anxiety and depression are based on difficulties in dealing with others, interpersonal therapy aims to develop **interpersonal skills** in 12–16 weekly sessions.

1. ---Introduction of psychology (& perception)

Introduction:

Psychology is defined as the scientific study of behavior & mental processes.

Note:

normal (physiology): Psychology

abnormal (pathology): Psychiatric

Normality:

It is difficult to define normality. Yet, we see a person as normal when he can control his behavior, has stable relationships, is acceptable and respectful, has normal perception of reality, has good self esteem, and is productive.

We can base our judgment on normality vs. abnormality by examining the subject from 4 perspective (also called the four definitions of normality):

1. Statistical Definition: Abnormal= away from normal mean by many standard deviations (SD), (example by more than 2 SD): e.g. Height, Weight & intelligence.
 2. Normality as ideal and perfect, although we might not agree on what is absolutely ideal and perfect. Sigmund Freud had said once: ".. normality in general [is an] ideal fiction." Also called normality as Utopia.
 3. Maladaptiveness of behavior: How the behavior affect the wellbeing of the individual or of the social group (e.g.) alcoholic, violence ...etc.
 4. Personal Distress: Individual subjective feelings of distress rather than the individual's behavior (e.g.) mental illness.
-
-

Perception الإدراك:

Defined as: the conscious mental registration (or interpretation) of a sensory stimulus.

Psychologists were among the first scientists who studied perception excessively. But lately this subject is more included in the branch of physiology of senses (vision, hearing, etc.) . In psychiatry we take abnormalities of perception and this is discussed in the lecture of introduction to psychiatry.

INRODUCTION TO PSYCHOLOGY

It started with philosophers but it is now more near to physiology. The beginning of scientific psychology can be dated to the 19th century when the first psychology laboratory was opened in which we started doing experiments.

In 1920s behavioral and psychoanalytic schools of psychology appeared. The behavioral school of psychology studied behavior of animals and did experiments on animals and applied the results on humans. They say that all behavior is a result of conditioning (see lecture of Learning and Conditioning). Behaviorists neglected concepts like "consciousness" which are private and cannot be measured in experiments.

Psychoanalysis التحليل النفسي is both a theory of personality and a method of psychotherapy علاج نفسي بالكلام originated by Sigmund Freud around the turn of the 20th century (see lecture of personality). At the centre of Freud's theory is the concept of the **unconscious** اللاوعي، أو يترجم في بعض الكتب بمصطلح: الخافية: the thoughts, attitudes, impulses, wishes, motivations, and emotions of which we are unaware. Freud believed that we are driven by the same basic instincts as animals (primarily sex and aggression) and that we are continually struggling against a society that stresses the control of these impulses. Contemporary معاصرين psychologists do not accept Freud's theory in its entirety, but they tend to agree that people's ideas, goals, and motives can at times operate outside conscious awareness.

Psychology started to be more close to physiology, and we ill concentrate on our lectures on the biological perspective of psychology.

Biological Perspective

The brain contains 10 billion nerve cells and countless interconnections between them. It may be the most complex structure in the universe. The brain is a dynamic structure. Synapses grow during learning and also there is new evidence of new neurons born in the adult brain after a variety of experiences.

The finding that brain damage in some areas lead to some deficits started the research to localize functions in the brain.

It was found that frontal lobe damage lead sometimes to a change in behavior, usually disinhibition. Hippocampus is linked to memory. Amygdala to fear (it is active when we feel fear and not active when we are relaxed).

Sometimes very specific deficits occur due to very small and specific damages like in the cases of failure of recognition (failure of recognition is called agnosia and are of

many types). For example, a specific area in the right hemisphere if damaged, a failure to recognize faces will occur, and this is called prosopagnosia.

Neurotransmitter

There are more than 70 neurotransmitters identified. Some has many receptors with different effects (e.g. glutamate can activate at least 10 types of receptors.)

1. Serotonin: low serotonin leads to depressed mood. Antidepressants increase serotonin (TCAs, MAOIs, and SSRIs). Serotonin is also important in the regulation of sleep, appetite, sexuality, and impulse control.
2. Norepinephrine: Cocaine and Amphetamines increase norepinephrine in the synapses leading to euphoria الفرح الغير طبيعي and activity. Lithium decreases norepinephrine causing person's mood to be depressed (used as treatment of mania الهوس). Depression is treated by the antidepressants TCAs, and MAOIs which all increase norepinephrine and serotonin in the synaptic clefts.
3. Dopamine: too much dopamine in some areas of the brain causes schizophrenia. All antipsychotics are dopamine antagonists. Decrease dopamine in some areas of brain causes Parkinsonism (treated by L-Dopa). Antipsychotics can cause parkinsonism as side effect and L-Dopa can cause psychosis as a side effect.
4. Acetylcholine: present in all the brain but especially present in the hippocampus where it plays a role in memory formation. In Alzheimer's dementia خرف , neurons in the forebrain that produce acetylcholine degenerate leading to decrease in acetylcholine. Drugs for Alzheimer's dementia increase the level of acetylcholine. Anticholinergic drugs lead sometimes to confusion, as a side effect.
5. Glutamate: excitatory amino acid neurotransmitter. It is present in more neurons in the CNS than any other neurotransmitter. It has many receptors. Its NMDA receptor affects learning and memory. Hippocampus is rich in NMDA receptors. Disruption of glutamate neurotransmission has been implicated in schizophrenia.
6. GABA: is an amino acid neurotransmitter. It is the major inhibitory neurotransmitter. Anti-anxiety drugs (Benzodiazepines) act on its receptors.

Hormones and psychology

Understanding how the hormones work is essential in understanding psychology for example in stress (see lecture of stress).

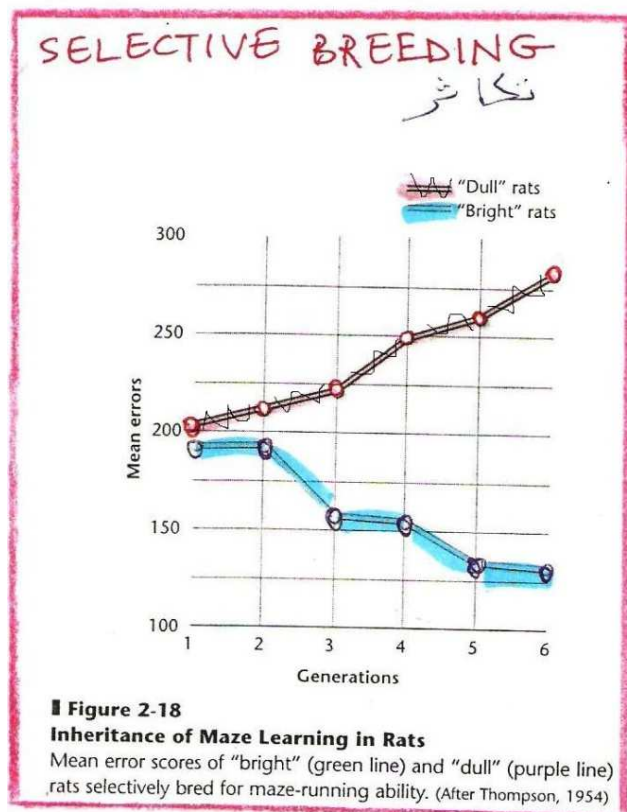
Psychological experiments (Genetics and functional brain imaging):

It is known that some single-gene disorders lead to dramatic changes in behavior. (e.g. phenylketonuria PKU(recessive gene) and Huntington's disease (dominant gene)). PKU leads to mental retardation and Huntington's disease leads to progressive

deterioration in memory associated with abnormal movements and depression and a significant number of suicide.

But most human complex characteristics (like intelligence) are polygenetic and cannot be studied easily or directly, so it is studied indirectly (e.g. by selective breeding) in animals) and twin studies (in humans).

Selective Breeding: animals that are high or low in a certain behavioral or physical trait are mated with each other. A scientist has classified rats to "dull" and "bright" according to their ability to learn how to find their way into a maze متاهة and started selective breeding and the results are shown in the figure below:



Family and Twin studies

In human being it is unethical to do selective breeding, so psychologists started doing family and twin studies to study genetics of psychology. Family and twin studies help us to know whether what we are studying (e.g. intelligence) are affected by environmental or hereditary factors. If parents with high intelligence always will have clever children then this means that the cause of intelligence is genetic. But, some scientists said that clever parents will raise their children cleverly and teach them good, so intelligence is environmental. Twin studies resolved this argument.

If a psychological characteristic (e.g. intelligence) is environmental then there must be no much difference in the intelligence of twins, all twins, whether they are identical or

fraternal, because usually twins will have the same environment from the placenta to early childhood.

If a psychological character is genetic then there must be not much difference in twins who are raised apart (e.g. adopted متبنون). This is called **adoption studies**.

When comparing identical (monozygotic MZ) and fraternal (dizygotic DZ) twins, identical twins are more similar in intelligence than fraternal twins, even when they were separated at birth and lived in different homes. Identical twins are more similar than fraternal twins in some personality characteristics and in susceptibility to schizophrenia. When MZ twins are more similar to each other in some characteristic than the DZ that means that that difference is purely genetic.

The difference between MZ and DZ twins' concordance rates give us an idea about the pure genetic factors, see the following example:

In all the world the lifetime prevalence of schizophrenia in the general population is 1%. The prevalence will increase to 10% if one is having a first-degree relative with schizophrenia. This increase is caused by genetics, but some argue that this may be due to the shared environment, because they live in the same family. The DZ concordance rate of schizophrenia is 10% (i.e. if we collect 100 persons who have a DZ with schizophrenia we will see that 10% of those persons have schizophrenia also). But the MZ concordance rate of schizophrenia is 50%, higher than DZ concordance rate by five times, and this increase is purely genetic and cannot be explained as caused by environmental factors.

Environmental influence on gene action:

In medicine there are many diseases that are inherited but needs an environmental factor to appear in the person. Example in diabetes, it runs in families, but it needs obesity as an environmental factor to appear in the person. In schizophrenia, the environmental factor may be "stress" so that the person who has inherited a vulnerability to schizophrenia develops it.

Reference: Atkinson & Hilgard's INTRODUCTION TO PSYCHOLOGY

AGGRESSION

It has social and biological determinants:

3rd Jan 2016 Sunday Al-
Mustansiriya Medical College.
Psychiatry. Dr. Sami Adil.

A. Social determinants of aggression

Factors associated with increased aggression include: poverty, frustration, physical pain, and exposure to aggression in the media.

B. Biological determinants of aggression

1. Hormones

a. Androgens are closely associated with aggression. In most animal species and human societies, males are more aggressive than females; homicide involving strangers is committed almost exclusively by men.

b. Androgenic or anabolic steroids, often taken by bodybuilders to increase muscle mass, can result in high levels of aggression and even psychosis.

c. Estrogen, progesterone, and antiandrogens therefore can be useful in treating male sex offenders.

2. Substances of abuse and their effects on aggression

Low doses of alcohol and barbiturates inhibit aggression, while high doses facilitate it. Increased aggression is associated with the use of cocaine, amphetamines, and phencyclidine (PCP).

3. Neural bases of aggression

a. Serotonin and g-aminobutyric acid (GABA) inhibit aggression, and dopamine and norepinephrine facilitate it; low levels of the serotonin metabolite 5-hydroxyindoleacetic acid (5-HIAA) are seen in people who show impulsive aggression.

- b. Drugs used to treat inappropriate aggressiveness include antidepressants, benzodiazepines, antipsychotics (particularly atypical agents), and mood stabilizers (e.g., lithium).
- c. Abnormalities of the brain (e.g., abnormal activity in the amygdala and prepiriform area, and psychomotor and temporal lobe epilepsy) and lesions of the temporal lobes, frontal lobes, and hypothalamus are associated with increased aggression.
- d. Violent people often have a history of head injury or show abnormal electroencephalogram (EEG) readings.

SUICIDE

The available evidence about prevalence of completed suicide in Iraq is around 50 suicides per 5 millions per year (1:100,000 per year)¹. This rate is similar to nearby countries.

The term Parasuicide refers to a suicidal attempt that did not cause death. The intent of the patient of parasuicide can be either the real intent of death, or maybe an attention seeking behavior.

The term Self-Mutilation, and the term Deliberate Self-Harm (DSH) refer to intentional self-injury, usually with the intent of suicide. In Iraq, as in worldwide, this is usually done by cutting using sharp objects, but also can be by burning, or biting, and many patients have associated drug abuse problem, and the most common diagnosis is personality disorder

².

Parasuicide (or Deliberate self-harm) is not a rare presentation in the emergency units in Iraq, which is more common in females, who state the most common cause of their act as: "problems with the family", while men use more violent methods than females except for self-burn

which is more common in females, and is an indicator of a real intent to die³.

Risk factors for completed suicide from higher to lower risk are:

- (1) serious prior suicide attempt
- (2) age older than 45 years
- (3) alcohol dependence
- (4) history of rage and violent behavior
- (5) male sex.

PSYCHIATRIC REHABILITATION

It is the process of restoration of community functioning and well-being of an individual who is disabled due to a mental disorder.

In the 1960s and 1970s, the anti-psychiatry movement led to the process of de-institutionalization, which means that individuals with mental health problems are better to be let living in their communities rather

than being confined to the asylums. The de-institutionalization led to new problems like unemployment, and homelessness. For example, schizophrenic patients, worldwide and in Iraq, show a significant lower Quality of Life (QOL) ⁴.

The team of psychiatric rehabilitation include many workers (psychiatrists, social workers, psychologists, & occupational therapists) who need some governmental laws and finance to help provide:

- independent living
- supported education
- vocational rehabilitation and supported employment,
- social network enhancement and access to leisure activities

There is often a focus on challenging stigma and prejudice to enable social inclusion.

References:

1. Ovanessian S. A. (1993) A Preliminary Study of Suicide in Baghdad. A thesis submited to the Iraqi Board of Medical Specializations (Psychiatry)
2. Al-Unadi A, Aboud G. (2005) Factors associated with self mutilation. The Iraqi Journal of Medicine 1(3): 16-22
3. Al-Haidary A. F., Al-Badri S. A. (2016) Deliberate Self-Harm Cases Presented to the Emergency Unit of Al-Hussein General Teaching Hospital in Karbala/ Iraq. Al-Qadisiya Medical Journal.
4. Al-Saffar N. M., Yaseen Y. A. (2009) Quality of life in schizophrenic patients in Duhok city. Tikrit Medical Journal; 15(2):79-86

Note: the main bulk of information is taken from Fadem B. (2014) Behavioral Sciences.

THEORIES OF DEVELOPMENT

psychology lecture, 5th year
Medical College Al-Mustansiriya.
Dr. Sami Adil 25th Dec. 2016

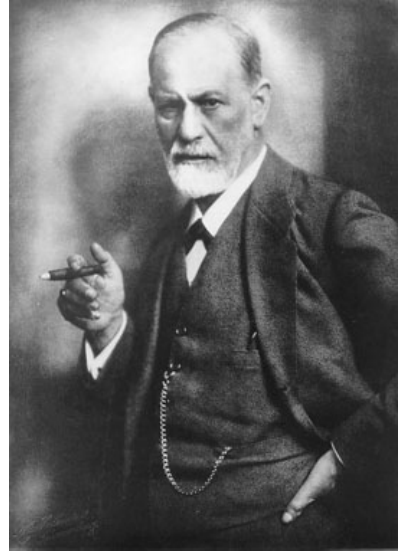
1. Theory of temperaments: Chess and Thomas

showed that there are endogenous differences in the temperaments of infants that remain quite stable for the first 25 years of life. These differences include such characteristics as reactivity to stimuli, responsiveness to people, and attention span.

- a. Easy children are adaptable to change, show regular eating and sleeping patterns, and have a positive mood.
- b. Difficult children show traits opposite to those of easy children.
- c. Slow-to-warm-up children show traits of difficult children at first but then improve and adapt with increased contact with others.

2. Sigmund Freud theory psychosexual development:

- a. oral stage (from birth to 1st year): the pleasurable zone is the oral area. Unresolved fixation in this stage leads to dependent personality.
 - b. anal stage (1-3 yr): fixation leads to obsessive personality.
 - c. phallic stage (3-5 yr), during which occurs oedipal complex, the resolution of this complex is completed by identification with the same sex parent.
- d. latent stage (5-11 years of age), the sexual and aggressive drives are expressed by socially acceptable defense mechanisms, especially repression and sublimation.
 - e. genital stage (11-13 yrs).



3. Erik Erikson psychosocial development: described development in terms of critical periods for the achievement of social goals; if a specific goal is not achieved at a specific age, the individual will have difficulty achieving the goal in the future. For example, in Erikson's stage of basic trust versus mistrust, children must learn to trust others during the first year of life or they will have trouble forming close relationships as adults.

<u>Psychosocial Stage</u>	<u>Associated Virtue</u>
Trust vs. mistrust (birth—)	Hope
Autonomy vs. shame and doubt (-18 months—)	Will
Initiative vs. guilt (-3 years—)	Purpose
Industry vs. inferior- ity (-5 years—)	Competence
Identity vs. role confusion (-13 years—)	Fidelity
Intimacy vs. isolation (-20s—)	Love
Generativity vs. stag- nation (-40s—)	Care
Integrity vs. despair (-60s—)	Wisdom

4. **Jean Piaget described cognitive development** in terms of learning capabilities of the child at each age. Piaget coined some terms like:

Object permanence is the understanding that objects continue to exist even when they cannot be observed, and it is accomplished by the end of first year of age, and this is why, according to Piaget, infants like to play **Peekaboo** لعبة الذي

Egocentrism occurs when a child is unable to distinguish between their own perspective and that of another person. While Piaget theorized that this continues till the age of 7 years, it is now agreed that it is not an all or none phenomenon, but it has degrees, and it continues to develop throughout life.

STAGES OF DYING AND DEATH

According to **Dr. Elizabeth Kübler-Ross**, the process of dying involves **five stages: Denial, anger, bargaining, depression, and acceptance (DAnG BaD Act)**. The stages usually occur in the following order, but also may be present simultaneously or in another order.

A. Denial. The patient refuses to believe that he or she is dying. (“The laboratory made an error.”)

B. Anger. The patient may become angry at the physician and hospital staff. (“It is your fault that I am dying. You should have checked on me weekly.”) Physicians must learn not to take such comments personally.

C. Bargaining. The patient may try to strike a bargain with God or some higher being. (“I will give half of my money to charity if I can get rid of this disease.”)

D. Depression. The patient becomes preoccupied with death and may become emotionally detached. (“I feel so distant from others and so hopeless.”) Some people become “stuck” in this stage and may be diagnosed with an abnormal or complicated grief reaction.

E. Acceptance. The patient is calm and accepts his or her fate. (“I am ready to go now.”)

BEREAVEMENT (NORMAL GRIEF) VERSUS DEPRESSION
(ABNORMAL GRIEF OR COMPLICATED BEREAVEMENT)

After the loss of a loved one, there is a normal grief reaction. This reaction also occurs with other losses, such as loss of a body part, or, for younger people, with a miscarriage or abortion. A normal grief reaction must be distinguished from an abnormal grief reaction, which is pathologic.

A. Characteristics of normal grief (bereavement)

1. Grief is characterized initially by shock and denial.
2. In normal grief, the bereaved may experience an illusion that the deceased person is physically present.
3. Normal grief generally subsides after 1–2 years, although some features may continue longer. Even after they have subsided, symptoms may return on holidays or special occasions (the “anniversary reaction”).
4. The mortality rate is high for close relatives (especially widowed men) in the first year of bereavement.

Normal Grief Reaction (Bereavement)	Abnormal/Complicated Grief Reaction (Depression)
Minor weight loss (e.g., <5 pounds)	Significant weight loss (e.g., >5% of body weight)
Minor sleep disturbances	Significant sleep disturbances
Mild guilty feelings	Intense feelings of guilt and worthlessness
Illusions (see Chapter 10)	Hallucinations or delusions (see Chapter 10)
Attempts to return to work and social activities	Resumes few, if any, work or social activities
Cries and expresses sadness	Considers or attempts suicide
Severe symptoms resolve within 2 mos	Severe symptoms persist for >2 mos
Moderate symptoms subside within 1 yr	Moderate symptoms persist for >1 yr
Management includes increased calls and visits to the physician, grief peer support groups, and short-acting sleep agents, e.g., zolpidem (Ambien) for transient problems with sleep	Management includes antidepressants, antipsychotics, electroconvulsive therapy and increased contact with the physician

Adapted from Fadem B. *Behavioral Science in Medicine*, 2nd ed. Baltimore, MD: Lippincott Williams & Wilkins, 2012.

المرحلة الخامسة/ الطب النفسي

د.سامي عادل / 19 dec 2016

COGNITIVE DISORDERS: Amnesia, Delirium, & Dementia

Cognitive disorders lecture (part 2): Dementia

Approximately 15 percent of people with dementia have reversible illnesses if treatment is initiated before irreversible damage takes place. The reversible dementias can be memorized by the mnemonic **DEMENTIA** (**D**rugs, **E**ndocrine, **M**etabolic, **E**motional, **N**utritional, **T**umor, **I**nfections, & **A**therosclerosis).

The DSM-IV criteria to diagnose a dementia can be summarized in the mnemonic: Memory BREW (brew= يَتَخَمَّرُ، تخمير). There must be a memory impairment plus one of 4 BREW symptoms:

Memory impairment

Behavioral disorganization (apraxia)

Recognition impairment (agnosia)

Executive functioning impairment

Word problems (aphasia)

BOX: General treatment of dementia:

Treat the underlying cause, if possible.

Environmental measures: maintain familiar surroundings and routines; night-lights, large calendars, large digital clocks, and for wanderers, locked doors and windows. Driving should be inhibited; guardianship may be required.

Depression may be treated with antidepressants (eg. An SSRI such as citalopram).

Agitation, if part of depression, treated as above. If not, consider low-dose carbamazepine, risperidone or trazodone.

Delusions or hallucinations may be treated with low-dose neuroleptic (eg, olanzapine, risperidone). In the case of diffuse Lewy body disease, rivastigmine may be effective.

Insomnia treated with zolpidem or lorazepam (but prevent daytime naps).

DDx of Dementia:

Delirium, amnesic disorders, depression (pseudodementia), schizophrenia, normal aging, ddx between types of dementia.

Dementia of the Alzheimer's Type

The final diagnosis of Alzheimer's disease requires a neuropathological examination of the brain; nevertheless, dementia of the Alzheimer's type is commonly diagnosed in the clinical setting after other causes of dementia have been excluded from diagnostic consideration.

Etiology

Senile plaques and neurofibrillary tangles throughout cortex, also present in some subcortical structures, esp the nucleus basalis of Meynert (nbM). The nbM is the principle source of cholinergic innervations to the cortex, and cell loss there correlates well with degree of amnesia. Approximately 5% of cases are clearly familial, with mutations on chromosome 1, 14, and 21. In remainder there is strong association with presence of ApoE epsilon 4 allele.

Sing and symptoms (sx): onset gradual with either amnesia or personality change; rarely presents with a progressive aphasia. Amnesia initially primarily anterograde (Pts forget where they put things or what happened earlier in the day). Retrograde amnesia worsens with progression of disease (Pts forget where they worked, then the names of children, whom they married, where schooled, etc.).

Personality change: apathy or coarsening of behavior; elements of a frontal lobe syndrome may appear.

Depression occur in approximately one-fourth, hallucinations (visual > auditory), and delusions (persecutory most common).

Most patients eventually gradually develop focal signs such as aphasia and apraxia.

Mild parkinsonism may occur, and myoclonus and seizures are seen in minority.

Investigations: MRI reveals widespread cortical atrophy, generally most prominent in temporal and parietal lobes. Apolipoprotein E (ApoE) genotyping lacks specificity and is not recommended for dx purposes.

Course and Prognosis (cx): progressive, with death within 5-7 yr.

Treatment (rx): for general treatment of dementia see the box above.

Vitamin E or selegiline may retard progression of the disease.

Cholinesterase inhibitors such as donepezil may improve memory but does not slow progression of this disease. Galantamine or rivastigmine are alternatives to donepezil.

Memantine is an NMDA antagonist which is also effective in improving memory: combination treatment with donepezil and memantine is more effective than either alone; typically donepezil is begun first and assessed, then memantine is added.

Depression and psychotic symptoms may be treated as in the box above.

Avoid medications with anticholinergic activity as they may worsen amnesia.

Vascular Dementia (also called multi-infarct dementia):

Fully developed clinical picture characterized by global cognitive deficit, depression and lability, and numerous focal signs, reflecting location of infarctions, such as hemiplegia, aphasia, apraxia, aprosodia, and in advanced cases, pseudobulbar palsy.

Investigations: MRI reveals multiple cortical or subcortical lesions secondary to infarction or intracerebral hemorrhages.

Cx: typically downhill in a stepwise fashion, with each fresh stroke bringing pt one step further down into dementia. Exceptions to stepwise course include multiple, closely spaced infarctions, as, eg, in hypertensive encephalopathy.

In most pts, each fresh stroke is heralded by a delirium, which, upon clearing the pt to be one step further down.

Etiology: most due to arteriosclerosis; other causes include cerebral amyloid angiopathy, polyarteritis nodosa, vasculitis secondary to cocaine or amphetamines, cranial arteritis, systemic lupus erythematosus, meningovascular syphilis.

Rx: for general treatment of dementia see box above.

Treat underlying cause.

Both donepezil and memantine may partially improve cognition.

Alzheimer's dementia	Vascular dementia
Female	Male
Older age of onset	Younger than Alzheimer

Chromosome # 21	Hypertention
Linear or progressive deterioration	Stepwise or pathy deterioration
No focal deficits	Focal deficits
Supportive treatment	Treat the underlying condition

Lewy Body Disease

Signs and Symptoms (sx): onset gradual in 60s or 70s. Pts present with either dementia or a mild parkinsonism. Dementia, early on, is distinguished by brief episodes of confusion and by unexplained falls; hallucinations (visual > auditory) and delusions (typically of persecution) are very common, and most pts display an unusual sensitivity to neuroleptics, developing severe parkinsonian SEs. With progression, a global intellectual deficit appears, as do mild focal signs such as apraxia or aphasia, and myoclonus.

Lab: MRI shows mild cortical atrophy and ventricular dilatation.

Course and prognosis (crs): progression is gradual with death in 1 to 20 yr (average 12-13 yr).

Etiol: Lewy bodies throughout the cortex and in the nbM and substantia nigra.

Ddx: Parkinson's disease, progressive supranuclear palsy, dementia pugilistica, others.

Rx: For general rx of dementia see the box above.

Dementia and psychotic symptoms may respond to rivastigmine, if antipsychotics are required, use second-generation agents less likely to cause parkinsonism (eg, risperidone or quetiapine). Motor parkinsonian sx are mild and generally do not require rx with levodopa-carbidopa.

Pick's Disease is rare. In contrast to the parietal-temporal distribution of pathological findings in Alzheimer's disease, Pick's disease is characterized by a preponderance of atrophy in the frontotemporal regions, and hence Pick's disease is associated with more personality changes than Alz. . The cause of Pick's disease is unknown. Features of Kluver-Bucy syndrome (e.g., hypersexuality, placidity, and hyperorality) are much more common in Pick's disease than in Alz.

Huntington's Disease is a rare, progressive neurodegenerative disease that involves loss of GABA-ergic neurons of the basal ganglia, manifested by choreoathetosis, psychosis and dementia. Cause by a defect in an autosomal dominant gene located on the short arm of chromosome 4. Atrophy of caudate nucleus, with resultant ventricular enlargement, is common. Clinical onset usually occurs at approximately age 40. Delusions and hallucinations (visual > auditory) are common. Early symptoms include personality changes and subtle movement disturbances with progression to choreoathetosis and dementia. Behavioral disorganization, severe mood instability, suicidal behavior, and psychotic features are common. Clues: dropping objects, shrugging shoulders, clumsiness.

Normal Pressure Hydrocephalus: there is enlarged ventricles, and normal CSF pressure. Consists of a triad of gait apraxia, urinary incontinence, and dementia. Rx include placement of shunt.

Pseudodementia is typically seen in an elderly patient who has a depressive disorder but appears to have symptoms of dementia. Should have improvement after being treated with antidepressants. Can usually date the onset of their symptoms.

Pseudodementia	Dementia
Acute onset	Insidious onset
Family aware	Family unaware at first
Answers "I don't know" when asked questions	Confabulates when asked questions
Will talk about deficits when asked	Will minimize their deficits
Treat with antidepressants	Will not improve with antidepressants

Sundowner Syndrome

Sundowner syndrome is characterized by drowsiness, confusion, ataxia, and accidental falls. It occurs in older people who are overly sedated and in patients with dementia who react adversely to even a small dose of a psychoactive drug. The syndrome also occurs in demented patients when external stimuli, such as light and interpersonal orienting cues, are diminished.

Psychology 5th year Medical College Al
Mustansiriyah. Dr. Sami Adil 25th
december 2016

INTELLIGENCE

Theories about intelligence differ widely in its definition. Some define it as: "the ability to learn from experience, think in abstract terms, and deal effectively with one's environment". Some put great importance on the speed of processing information in the definition of intelligence.

ASSESSMENT OF INTELLECTUAL ABILITIES

In the 19th century studies to measure intelligence were done on head size, reaction time, visual acuity, auditory threshold and memory for visual forms but these tests did not prove to be useful. In the 19th century the French government made the law of obligatory education *قانون التعلم الإلزامي* and asked the psychologists to make a test for the "slow learners" so that they put them in special schools. The French psychologist Alfred Binet made a test which measures reasoning and problem solving abilities rather than perceptual-motor skills. He also made the concept of Mental Age (MA) and Chronological *الزمني* Age (CA). Mental age is defined as the average age of the

children taking Binet test who achieved the same score (e.g. Conservation of volume = 7 years of age (see lecture of development)).

Later, Stanford University in the USA took Binet tests and added to it and reviewed it years after years and now we have what is called the "Stanford-Binet Intelligence Scale" which is used until now to calculate the Intelligence Quotient (IQ). The IQ expresses intelligence as a ratio of MA/CA x 100. The Stanford-Binet groups its tests into 4 areas:

1. Verbal reasoning,
2. Abstract/ visual reasoning,
3. Quantitative reasoning, and
4. Short-term memory.

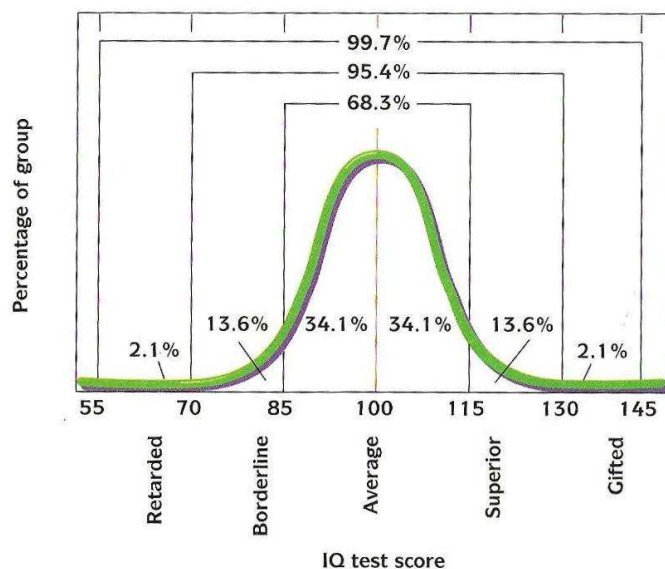


FIGURE 8-1 The average and most frequent IQ score is 100, and 68.3 percent of all people are within a 30 point range centered on 100. Some 95 percent of the population have scores that are within 30 points above or below 100, and 99.7 percent have scores that are between 55 and 145.

The IQ scores on the general population is distributed in a bell-like curve (normal distribution)

Another test of intelligence that also measures the IQ and is widely used is named "The Wechsler Intelligence Scale" which is translated to Arabic in Egypt and it contains two scales: a verbal scale, and a performance scale like you see in the figure below.

Types of Items found on the Wechsler Intelligence Scales for Children—III (WISC-III)

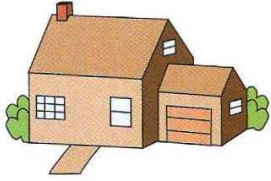
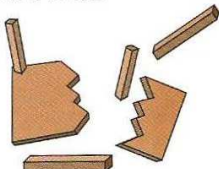
Name	Goal of Item	Example
<i>Verbal scale</i>		
<i>Information</i>	To assess general information	Where does milk come from?
<i>Comprehension</i>	To test understanding and evaluation of social norms and past experience	Why do we put food in the refrigerator?
<i>Arithmetic</i>	To assess math reasoning through verbal problems	Stacy had two crayons and the teacher gave her two more. How many did she have altogether?
<i>Similarities</i>	To test understanding of how objects or concepts are alike, tapping abstract reasoning	In what way are cows and horses alike?
<i>Performance Scale</i>		
<i>Digit symbol</i>	To assess speed of learning	Match symbols to numbers using the key <div style="display: flex; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">2</div> <div style="border: 1px solid black; padding: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">4</div> </div> <div style="display: flex; justify-content: center; gap: 5px; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px;">></div> <div style="border: 1px solid black; padding: 2px;">+</div> <div style="border: 1px solid black; padding: 2px;">∩</div> <div style="border: 1px solid black; padding: 2px;">∴</div> </div> <div style="display: flex; justify-content: center; gap: 5px; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">4</div> <div style="border: 1px solid black; padding: 2px;">2</div> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">2</div> <div style="border: 1px solid black; padding: 2px;">4</div> <div style="border: 1px solid black; padding: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">3</div> </div>
<i>Picture completion</i>	To identify missing parts, testing visual memory and attention	Identify what is missing 
<i>Object assembly</i>	To test understanding of relationship of parts to wholes	Put pieces together to form a whole 

FIGURE 8-2 Typical kinds of items found on the verbal and performance scales of the Wechsler Intelligence Scales for Children—III (WISC-III).

There are critics to these IQ tests saying that they are poor predictors of achievement. There are other tests of intelligence like the Raven's progressive matrices. Binet's, Wechsler's and other tests (like Raven's) are measuring intelligence as a general capacity of reasoning. Psychologists discussed whether intelligence is a single, unitary factor, or whether it is made up of multiple components. Earliest psychologists (including Binet, Wechsler, and Raven) assumed that there was a general factor for mental abilities, called *g*, or *g*-factor (Spearman 1904).

GARDNER'S THEORY OF MULTIPLE INTELLIGENCE (1993)

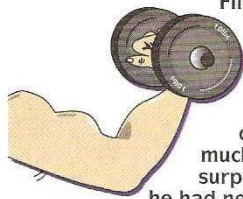
According to Gardner's theory there are 7 distinct kinds of intelligence that independent of one another, each operating as a separate system in the brain.

1. Musical intelligence (skills in tasks involving music).
Case example:

When he was 3, Yehudi Menuhin was smuggled into the San Francisco Orchestra concerts by his parents. The sound of Louis Persinger's violin so entranced the youngster that he insisted on a violin for his birthday and Louis Persinger as his teacher. He got them both. By the time he was 10 years old, Menuhin was an international performer.



2. Bodily kinesthetic intelligence (skills in using the whole body or various portions of it in the solution of problems or in the construction of products or displays, exemplified by dancers, athletes, actors, and surgeons).
Case example:



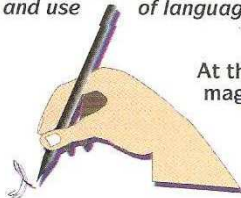
Fifteen-year old Babe Ruth played third base. During one game, his team's pitcher was doing very poorly and Babe loudly criticized him from third base. Brother Matthias, the coach, called out, "Ruth, if you know so much about it, *you* pitch!" Babe was surprised and embarrassed because he had never pitched before, but Brother Matthias insisted. Ruth said later that at the very moment he took the pitcher's mound, he *knew* he was supposed to be a pitcher.

3. Logical-mathematical intelligence (skills in problem-solving and scientific thinking). Case example:

Barbara McClintock won the Nobel Prize in medicine for her work in microbiology. She describes one of her breakthroughs, which came after thinking about a problem for half an hour . . . : "Suddenly I jumped and ran back to the (corn) field. At the top of the field (the others were still at the bottom) I shouted, 'Eureka, I have it!'"



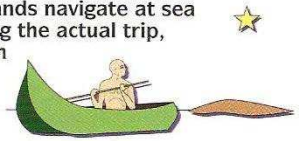
4. Linguistic intelligence (skills involved in the production and use of language). Case example:



At the age of 10, T. S. Eliot created a magazine called *Fireside*, to which he was the sole contributor. In a three-day period during his winter vacation, he created eight complete issues.

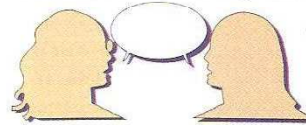
5. Spatial intelligence (skills involving spatial configurations, such as those used by artists and architects). Case example:

Natives of the Caroline Islands navigate at sea without instruments. During the actual trip, the navigator must envision mentally a reference island as it passes under a particular star and from that he computes the number of segments completed, the proportion of the trip remaining, and any corrections in heading.



6. Interpersonal intelligence (skills in interacting with others, such as sensitivity to the moods, temperaments, motivations, and intentions of others). Case example:

When Anne Sullivan began instructing the deaf and blind Helen Keller, her task was one that had eluded others for years. Yet, just two weeks after beginning her work with Keller, Sullivan achieved a great success. In her words, "My heart is singing with joy this morning. A miracle has happened! The wild little creature of two weeks ago has been transformed into a gentle child."



7. Intrapersonal intelligence (knowledge of the internal aspects of oneself; access to one's own feelings and emotions). Case example:

In her essay "A Sketch of the Past," Virginia Woolf displays deep insight into her own inner life through these lines, describing her reaction to several specific memories from her childhood that still, in adulthood, shock her: "Though I still have the peculiarity that I receive these sudden shocks, they are now always welcome; after the first surprise, I always feel instantly that they are particularly valuable. And so I go on to suppose that the shock-receiving capacity is what makes me a writer."



FIGURE 8-4 Gardner's seven intelligences. Source: Adapted from Walters & Gardner, 1986.

Certain kinds of brain damage can impair one type of intelligence and have no effect on the others. Gardner's theory can give an explanation why the IQ tests sometimes fail to give a good prediction of achievements. IQ tests, for e.g., do not measure interpersonal intelligence which is important in success at job and social life.

There are other theories of intelligence but those discussed above are the most prominent ones.

HEREDITABILITY OF INTELLIGENCE

MZ twins are more identical to each other in IQ tests results than DZ twins even when they are reared apart. Yet, there are environmental factors that affect IQ. The risk factors for low IQ in the environment include:

1. Lack of education,
2. Mental illness in his or her mother,
3. Minority status (which is associated with low standard of living and inferior schools), and
4. Large family size.

MENTAL RETARDATION

Mental retardation is defined as IQ less than 70 and functional impairment.

Its prevalence is about 1% in the USA general population. It is classified to: mild, moderate, severe, and profound, according to the score of IQ and the degree of function. In the mild form, the patient can get slight benefit from formal education, but they respond better to special schooling and socialization (socialization means helping them develop some skills and send them to work, under supervision, in the society). Those with the severe and profound type they do not speak and they cannot learn to feed, dress or develop toilet habits. The moderate MR patients can speak, dress and develop toilet habit but cannot benefit from ordinary schooling.

MR is not a specific disease but is produced by a number of causes, not all of which have been identified. Even in the USA about 50% of cases of MR remain with unknown etiology of their case. Among the known causes of MR are defects in metabolism, biochemical disorders, chromosomal abnormalities, maternal illnesses during pregnancy, injuries or infections at birth or soon afterward.

Notes: Do not ignore any word in this lecture even the words in the figures. All the figures used in the lecture is taken from (Feldman 2000). The main bulk of the information of the lecture is taken from (Hilgard 2003).

References:

1. Atkinson & Hilgard's INTRODUCTION TO PSYCHOLOGY. 2003. 14th edition. Thompson/Wadsworth (موجود في مكتبة الكلية)
2. Mowbray R.M., Ferguson R.T., and Mellor C.S. (1979) *Psychology in Relation to Medicine*. 5th edition. Churchill Livingstone
3. Robert S. Feldman. (2000) *Essentials of understanding psychology*. 4th edition. USA: McGraw-Hill
4. Spearman, C (1904). "General intelligence" objectively determined and measured. *American Journal of Psychology*, 15, 201-293

Behavioral Sciences. Fifth year
medical college- Mustansiriya
University. 5th Dec. Sunday. Dr
Sami Adil Al-Badri.

Motivation is defined as: it is what energize and direct behavior. Most motivations are learned. Motivational states arise from two sources: internal drive factors and external incentive factors. Some drives are tied to physiological needs like hunger and thirst. Other drives like sex or aggression are less tied to absolute physiological needs. External incentive motivation, which is affected by rewards (reinforcers), is typically associated with pleasurable affect (liking that same something). The brain's dopamine system appears to underline incentive motivation, or the experience of "wanting."

The Reward System of the Brain

The nucleus accumbens (NAc) is a small part of the brain that is important for motivation, pleasure, and addiction. Sometimes called the brain's "pleasure center," this cluster of neurons modulates the effects of the neurotransmitter dopamine, on which many neural circuits depend.

Damage to this region of the brain causes a lack of motivation.

When we are learning a new behavior and we are expecting a reward the Ventral Tegmental Area (VTA) will secrete dopamine to NAc, which will cause a feeling of pleasure. The afferents from VTA will also reach the Prefrontal Cortex (PFC).

The connection of VTA to NAc, amygdala and PFC is called the mesolimbic pathway, and it uses dopamine mainly and thought to be disrupted in depression, schizophrenia, and mania. It is the site where antipsychotic drugs block dopamine receptors to show so therapeutic effects in schizophrenia and mania. Deep brain stimulation used in depression is aimed to stimulate the NAc in patients with depression. Addiction is also thought to be caused by disruption of this pathway.

Placebo may exerts its effects through this pathway.

Homeostasis

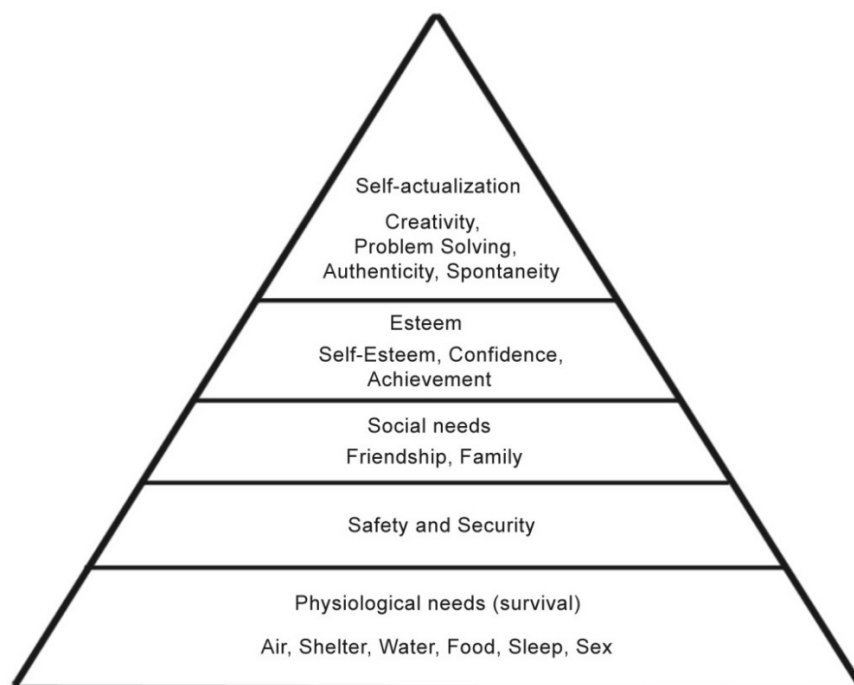
It is the tendency to preserve of a constant internal state and it occurs in all organisms. Homeostasis motivates us sometimes without us understanding it. Take for example a patient who develops Addison's disease. He will develop a preference to salty foods without knowing why. Addiction is also understood by mechanisms of homeostasis (Tolerance and withdrawal).

The homeostasis of temperature regulation, hunger, and thirst are now well understood. The set point for these is in the hypothalamus.

The eating drive is a complex drive and not merely dependent on the hypothalamic set point. It is also affected by the stomach wall distention, by signals from the mouth, and other parts of GIT. Eating drive is also affected by emotional, cognitive and cultural factors, this is why for example we see the disease Anorexia Nervosa most prevalent in western society and not in our society.

Abraham Maslow and the Hierarchy of Needs:

Hierarchy of Needs is a theory to explain motivations. Maslow suggested that there are different levels of motivations, some are basic, others are higher level, and the most basic level of needs must be met before the individual will strongly desire (or focus motivation upon) the secondary or higher level needs. Maslow used the terms "physiological", "safety", "social", "esteem", and "self-actualization" to describe the pattern that human motivations generally move through.



SUBSTANCE ABUSE

Most abused substances can be classified as stimulants, sedatives, opioids, or hallucinogens, and related agents.

1. Substance **abuse** is a pattern of abnormal substance use that leads to impairment of occupational, physical, or social functioning.
2. Substance **dependence** is substance abuse plus withdrawal symptoms, tolerance, or a pattern of repetitive use.
 - a. **Withdrawal** is the development of physical or psychological symptoms after the reduction or cessation of intake of a substance.
 - b. **Tolerance** is the need for increased amounts of the substance to achieve the same positive psychological effect.
 - c. **Cross-tolerance** is the development of tolerance to one substance as the result of using another substance.

Epidemiology:

It differs from a country to another but usually it is more common among young adult males.

Any substance abuse life time prevalence according to the IMHS is 0.9% (1.5% in males, and 0.25 in females) in Iraq. More common in young than older, urban than rural ⁽¹⁾.

In study 2014 all over Iraq lifetime prevalence of drug use: Tobacco: (29.0%); Alcohol, (8.6%); Licit drug misuse (2.5%,) and Illicit drug use (0.4%) ⁽²⁾. This study also found that:

- Anabolic steroids are the most widely used licit drug in Iraq followed by benzodiazepines and benzhexol. In the North of Iraq, there are concerns of increasing misuse of tramadol.
- Cannabis is the most widely used illicit drug, but use of stimulants (Amphetamines and Captagon) in the South of Iraq is present. This finding is consistent with worldwide data, but in Iraq, this gender difference is ~~either~~ particularly great.

- Lifetime rates of licit and illicit drug use were higher among younger participants (18-34 years), those with less education (less than primary school) and those who were not working.

STIMULANTS

Stimulants are CNS activators that include caffeine, nicotine, amphetamines, and cocaine.

Substances	Effects of Use	Effects of Withdrawal
	Psychological	
Caffeine & Nicotine	Increased alertness and attention span	Lethargy
	Mild improvement in mood	Mild depression of mood
	Agitation and insomnia	
	Physical	
	Decreased appetite	Increased appetite with slight weight gain
	Increased blood pressure and heart rate (tachycardia)	Fatigue
	Increased GIT activity	headache

	Effects of use	Effects of withdrawal
	Psychological	

<p>Amphetamines & Cocaine</p>	<p>Significant elevation of mood (lasting only 1 hour with cocaine)</p> <p>Increased alertness and attention span</p> <p>Aggressiveness, impaired judgment</p> <p>Psychotic symptoms (e.g., paranoid delusions with amphetamines and formication with cocaine)</p> <p>Agitation and insomnia</p>	<p>Significant depression of mood</p> <p>Strong psychological craving (peaking a few days after the last dose)</p> <p>Irritability</p>
Physical		
	<p>Loss of appetite and weight</p> <p>Pupil dilatation</p> <p>Increased energy</p> <p>Tachycardia and other CVS effects which can be life-threatening</p> <p>Seizures (particularly with cocaine)</p> <p>Reddening (erythema) of the nose due to "snorting" cocaine</p>	<p>Hunger (particularly with amphetamines)</p> <p>Pupil constriction</p> <p>Fatigue</p>

	Hypersexuality	
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Caffeine is found in coffee (125 mg/cup), tea (65 mg/cup), cola (40 mg/cup), nonprescription stimulants, and diet agents. Nicotine is a toxic substance present in tobacco. Cigarette smoking decreases life expectancy more than the use of any other substance.

Amphetamines are used clinically and are also drugs of abuse. They are medically indicated in the treatment of attention-deficit hyperactivity disorder (ADHD) and narcolepsy. They are sometimes used to treat depression in the elderly and terminally ill, and depression and obesity in patients who do not respond to other treatments. The most common clinically used amphetamines are dextroamphetamine, methamphetamine, and a related compound, methylphenidate which has a street name of "Ecstasy".
نشوة. that is used in Al Yemin contains amphetamines. القات Al-Qat
Cocaine is present as smokable forms and in pure forms usually sniffed into the nostrils ("snorted"). Hyperactivity and growth retardation are seen in newborns of mothers who used cocaine during pregnancy. Tactile hallucinations of bugs crawling on the skin (formication) is seen with use of cocaine ("cocaine bugs").

Neurotransmitter associations of stimulants:
Stimulant drugs work primarily by increasing the availability of dopamine (DA).
Amphetamine use causes the release of DA. Cocaine blocks the reuptake of DA.

Increased availability of DA in the synapse is apparently involved in the euphoric effects of stimulants and opiates (the "reward" system of the brain). As in schizophrenia, increased DA availability may also result in psychotic symptoms.

Overview

Sedatives are CNS depressants that include alcohol, barbiturates, and benzodiazepines.

Sedative agents work primarily by increasing the activity of the inhibitory neurotransmitter γ -aminobutyric acid (GABA).

Hospitalization of patients for withdrawal from sedatives is prudent ; the withdrawal syndrome may include seizures and cardiovascular حکيم symptoms that could be life-threatening.

Substances	Effects of use	Effects of withdrawal
Alcohol, Benzodiazepines, & Barbiturates	Psychological	
	Mild elevation of mood	Mild dression of mood
	Decreased anxiety	Increased anxiety
	Somnolence	Insomnia
	Behavioral disinhibition	Psychotic symptoms (e.g. delusions and formication)
		Disorientation
	Physical	
	Sedation	Tremor
	Poor coordination	Seizures CVS symptoms, such as tachycardia and hypertension
	Respiratory depression	

Alcohol

1. Acute problems

- a. Traffic accidents, homicide, suicide, and rape, are correlated with the concurrent use of alcohol.

b. Child physical and sexual abuse, spouse abuse, and elder abuse are also associated with alcohol use.

2. Chronic problems

- a. Thiamine deficiency resulting in Wernicke and Korsakoff syndromes is associated with long term use of alcohol.
 - b. Liver dysfunction, GIT problems (e.g., ulcers), and reduced life expectancy are also seen in heavy users of alcohol.
- c. Fetal alcohol syndrome (including facial abnormalities, reduced height and weight, and mental retardation) is seen in the offspring of women who drink during pregnancy.
- d. A childhood history of problems such as attention-deficit hyperactivity disorder and conduct disorder correlate with alcoholism in the adult.

3. Intoxication

- a. Legal intoxication is defined as 0.08%-0.15% blood alcohol concentration but this differs from country to another.
- b. Coma occurs at a blood alcohol concentration of 0.40%-0.50% in nonalcoholics.

4. Delirium tremens ("the DTs")

- a. Alcohol withdrawal delirium (also called delirium tremens or "the DTs") may occur during the first week of withdrawal from alcohol (most commonly on the third day of hospitalization). It usually occurs in patients who have been drinking heavily for at least 5 years.
- b. Delirium tremens is life threatening; the mortality rate is about 20%.

Barbiturates

- 1. Barbiturates are used medically as sleeping pills, sedatives, antianxiety agents (tranquilizers), anticonvulsants, and anesthetics.
 - 2. Frequently used and abused barbiturates include amobarbital, pentobarbital, and secobarbital.
- 3. Barbiturates cause respiratory depression and have a low safety margin; they are the drugs most commonly taken to commit suicide in the USA.

Benzodiazepines

1. Benzodiazepines are used medically as tranquilizers, sedatives, muscle relaxants, anticonvulsants, and anesthetics, and to treat alcohol withdrawal (particularly long-acting agents like chlordiazepoxide and diazepam).
2. Benzodiazepines have a high safety margin unless taken with another sedative, such as alcohol.
3. flumazenil, a benzodiazepine receptor antagonist, can reverse the effects of benzodiazepines in cases of overdoses.

In Iraq the most abused BNZ are: Clonazepam (trade name: Rivotril and), and Nitrazepam (trade name: Mogadon and أبو الصليب street name :), and Diazepam (trade name: Valium and street أبو الحاجب street name :). The street names of the drugs are not الدموي name of 10 mg tablet used so accurately and specifically by all abusers.

الخشخاش Opioids

Narcotics or opioid drugs include agents used medically as analgesics (e.g., morphine) as well as as drugs of abuse (e.g., heroin).

Substances	Effects of use	Effects of withdrawal
Heroin, Methadone, and Other Opioids	Psychological	
	Elevation of mood	Depression of mood
	Relaxation	Anxiety
	Somnolence	Insomnia
	Physical	
Sedation	Sweating, muscle aches, fever	
Analgesia	Rhinorrhea (running nose)	
Respiratory depression (overdose maybe fatal)	Piloerection (goose bumps)	
Constipation	Yawning	

	Pupil constriction (miosis)	Stomach cramps and diarrhea Pupil dilatation (mydriasis)
--	--------------------------------	---

When compared to medically used opioids like morphine and methadone, abused opioids such as heroin are more potent, cross the blood-brain barrier more quickly, have a faster onset of action and have more euphoric action.

In contrast to barbiturate withdrawal, which may be fatal, death from withdrawal of opioids is rare unless a serious physical illness is present.

Methadone and 1-alpha-acetylmethadol acetate (LAMM) are synthetic opioids used to treat heroin addiction; both also cause physical dependence and tolerance.

These legal opioids can be substituted for illegal opioids, such as heroin, to prevent withdrawal symptoms.

Methadone and LAMM can be taken orally (to avoid the complications of I.V. use e.g. hepatitis and AIDS), and they have a longer duration of action. They cause less euphoria and drowsiness, allowing people on maintenance regimens to keep their jobs and avoid the criminal activity that is necessary to maintain a costly heroin habit.

In Iraq some patients abuse cough syrups which contain codeine (an opioid) which can lead to dependence also. Some cough syrups contain an anti-histamine which causes sedation.

HALLUCINOGENS AND RELATED AGENTS

Hallucinogens include: lysergic acid diethylamide (LSD), phencyclidine(PCP, "angel dust"), cannabis (tetrahydrocannabinol,), psilocybin (from mushrooms) القنب الهندي marijuana, hashish and mescaline (from cactus).

Hallucinogens promote altered states of consciousness. Increased availability of serotonin is associated with the effects of some of these agents (e.g., LSD).

Substance	Effects of use	Effects of withdrawal
	Psychological	

Cannabis, LSD, PCP, Psilocybin, Mescaline	<p>Altered perceptual state (auditory and visual hallucinations, alterations of body image, distortions of time and space)</p> <p>Elevation of mood</p> <p>Impairment of memory (maybe long-term)</p> <p>Reduced attention span</p> <p>"Bad Trips" (panic reactions that may include psychotic symptoms)</p> <p>"Flashbacks" (a re-experience of the sensations associated with use in the absence of the drug even months after the last dose)</p>	Few if any psychological withdrawal symptoms
	Physical	
	<p>Impairment of complex motor activity</p> <p>CVS symptoms</p> <p>Sweating</p>	Few if any physical withdrawal symptoms

	Tremor	
	Nystagmus (PCP)	

Tetrahydrocannabinol (THC) is the primary active compound found in marijuana.

In low doses, marijuana increases appetite and relaxation and causes conjunctival reddening.

Chronic users experience lung problems associated with smoking and a decrease in motivation ("the amotivational syndrome") characterized by lack of desire to work and increased apathy.

Although illegal in the United States, at least two states permit limited medical use to treat glaucoma and cancer-related nausea and vomiting.

LSD is ingested and PCP is smoked in a marijuana or other cigarette.

While LSD and PCP both cause altered perception, in contrast to LSD, episodes of violent behavior occur with PCP use. Emergency department findings for PCP include hyperthermia and nystagmus (vertical or horizontal abnormal eye movements). Consumption of more than 20 mg of PCP may cause convulsions, coma, and death.

IN IRAQ and some other countries like Lebanon and Algeria, there is abuse of trihexyphenidyl or also called benzhexol (trade names: Artane,). It is an Antimuscarinic drug used in أبو الجمجمة Parkizol and street name: the treatment of Parkinson's disease. It causes euphoria.

Another drug abused in Iraq is Carisoprodol (trade name of Somadril) which is a muscle relaxant and sometimes mixed with codeine in the same tablet. Its medical use is for musculoskeletal pain.

TREATMENT

Motivational interviewing: is an empathetic non-judgmental technique aimed to aid the patient to explain why they should change their behavior and is based on the principle that: "people believe what they hear themselves say." The therapist does not take a directive role and aids the patient to assess to pros and cons of his current behavior using reflective listening and summarizing with identification of discrepancy between individual statements. Therapist then encourages the patient to take responsibility and the choice of treatment.

Harm Reduction: The longer term goal of tr. is abstinence, but this is not easily achieved, so we try at first achieve short term goals in what is

called as (Harm Reduction) during which we engage the patient in continuous contact with medical services, and try to decrease mortality & morbidity, and criminal activities, but giving some alternative safer drugs (called also replacement, or substitute drugs).

Detoxification (detox): is the medical mx of withdrawal symptoms in a patient with substance dependence. It can be done without use of medications (when withdrawal is not complicated), or with the use of replacement drugs &/or medication for symptomatic treatment (e.g. NSAIDs for headache, loperamide for diarrhea, metoclopramide for nausea, etc.)

Treatment of substance abuse and/or dependence includes the immediate treatment of intoxication or withdrawal symptoms and the maintenance treatment to prevent relapses.

Category	Immediate tr. /detoxification	Extended tr. /maintenance
Caffeine and nicotine	Eliminate or taper from diet Analgesics to tr. headache due to withdrawal	Substitute decaffeinated beverage Nicotine-containing gum, patch or nasal spray Antidepressants (particularly bupropion) to prevent smoking Hypnosis
Amphetamines and cocaine	BNZ. to decrease agitation Antipsychotics	Education for initiation and maintenance of abstinence
Sedative (alcohol, BNZ, Barbiturates)	Hospitalization Flumazenil to SE of BNZ	Education for initiation and maintenance of abstinence

	<p>Use of long acting BNZ in decreasing doses (detoxification)</p> <p>Specifically for alcohol: thiamine, restoration of nutritional state.</p>	<p>Specifically for alcohol: disulfiram, naloxone, naltrexone, acamprosate, psychotherapy, and Alcoholic Anonymous AA or other peer support groups</p>
Opioids	<p>Hospitalization and naloxone for overdose</p> <p>Clonidine to stabilize the autonomic nervous sys.</p> <p>Substitution of long-acting opioids (methadone) in decreasing doses to decrease withdrawal symptoms (detoxification)</p>	<p>Methadone, or buprinorphine maintenance program</p> <p>Naltrexone used prophylactically to block the effects of abused opioids</p> <p>Narcotic Anonymous or other peer support groups</p>
Hallucinogens	<p>Calming or "talking down" BNZ to decrease agitation</p> <p>Antipsychotics</p>	<p>Education for initiation and maintenance of abstinence</p>

Reference:

1. IMHS
2. *Survey of Substance Abuse in Iraq – Final Report June 2015. U.S. Department of State/Bureau of International Narcotics and Law Enforcement Affairs.*
3. Behavioral Sciences 2014 Barbara Fadem

A. Characteristics

1. Individuals with personality disorders (PDs) show **chronic, lifelong, rigid, unsuitable patterns of relating to others** that cause social and occupational difficulties (e.g., few friends, job loss).
2. Persons with PDs generally are not aware that they are the cause of their own problems (**do not have “insight”**), do not have frank psychotic symptoms, and **do not seek psychiatric help**.

B. Classification

1. Personality disorders are categorized by the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)* into **clusters: A** (paranoid, schizoid, schizotypal); **B** (histrionic, narcissistic, borderline, and antisocial); and **C** (avoidant, obsessive-compulsive, and dependent); and not otherwise specified (**NOS**) (passive-aggressive).
2. Each cluster has its own hallmark characteristics and genetic or familial associations (e.g., relatives of people with PDs have a higher likelihood of having certain disorders)
3. For the **DSM-IV-TR** diagnosis, a PD must be present by early adulthood. Antisocial PD cannot be diagnosed until the age of 18; prior to this age, the diagnosis is conduct disorder (see Chapter 15).

DSM-IV-TR Classification and Characteristics of
Personality Disorders

Personality Disorder Characteristics

Cluster A

Hallmark Avoids social relationships, is “peculiar” but not psychotic
Genetic or familial association Psychotic illnesses
Paranoid Distrustful, suspicious, litigious, Attributes responsibility
for own problems to others, Interprets motives of others as
malevolent, Collects guns

Schizoid Long-standing pattern of voluntary social withdrawal
Detached, restricted emotions, lacks empathy, has no thought
disorder

Schizotypal Peculiar appearance Magical thinking (i.e., believing
that one’s thoughts can affect the course of events) Odd thought
patterns and behavior without frank psychosis

Cluster B

Hallmark Dramatic, emotional, inconsistent
Genetic or familial association Mood disorders, substance abuse,
and somatoform disorders
Histrionic Theatrical, extroverted, emotional, sexually provocative,
“life of the party” Shallow, vain In men, “Don Juan” dress and
behavior Cannot maintain intimate relationships
Narcissistic Pompous, with a sense of special entitlement
Lacks empathy for others
Antisocial Refuses to conform to social norms and shows no
concern for others Associated with conduct disorder in childhood
and criminal behavior in adulthood (“psychopaths” or “sociopaths”)
Borderline Erratic, impulsive, unstable behavior and mood
Feeling bored, alone, and “empty” Suicide attempts for relatively
trivial reasons Self-mutilation (cutting or burning oneself) Often
comorbid with mood and eating disorders Mini-psychotic episodes
(i.e., brief periods of loss of contact with reality)

Cluster C

Hallmark Fearful, anxious
Genetic or familial association Anxiety disorders
Avoidant Overly sensitive to criticism or rejection Feelings of
inferiority, socially withdrawn
Obsessive-compulsive Perfectionistic, orderly, inflexible Stubborn
and indecisive Ultimately inefficient
Dependent Allows other people to make decisions and assume
responsibility for them Poor self-confidence, fear of being deserted
and alone May tolerate abuse by domestic partner

Not Otherwise Specified

Passive-aggressive Procrastinates and is inefficient
Outwardly agreeable and compliant but inwardly angry and defiant

C. Management

1. For those who seek help, individual and group psychotherapy may be useful.
2. Pharmacotherapy also can be used to manage symptoms such as depression and anxiety, that may be associated with the PDs.

III. DISSOCIATIVE DISORDERS

A. Characteristics

1. The dissociative disorders are characterized by abrupt but temporary **loss of memory (amnesia) or identity**, or by feelings of detachment owing to psychological factors. In contrast to the cognitive disorders in which memory loss is caused by biological brain dysfunction (see Section I), dissociative disorders are related to disturbing emotional experiences in the patient's recent or remote past.

DSM-IV-TR Classification and Characteristics of Dissociative Disorders

Dissociative amnesia Failure to remember important information about oneself after a stressful life event Amnesia usually resolves in minutes or days but may last years

Dissociative fugue Amnesia combined with sudden wandering from home after a stressful life event Adoption of a different identity

Dissociative identity disorder (formerly multiple personality disorder) At least two distinct personalities ("alters") in an individual More common in women (particularly those sexually abused in childhood) In a forensic (e.g., jail) setting, malingering and alcohol abuse must be considered and excluded

Depersonalization disorder Recurrent, persistent feelings of detachment from one's own body, the social situation, or the environment (derealization) when stressed Understanding that these perceptions are only feelings, i.e., normal reality testing Dissociative disorder not otherwise specified Dissociative symptom (e.g., trance-like state, memory loss) (1) in persons exposed to intense coercive persuasion (e.g., brainwashing) or (2) indigenous to particular locations or cultures (e.g., "Amok" in Indonesia)

1. The DSM-IV-TR categories of dissociative disorders are listed in Table 14.4.

2. Management of the dissociative disorders includes hypnosis and drug-assisted interviews (see Chapter 5) as well as long-term psychoanalytically oriented psychotherapy (see Chapter 17) to recover "lost" (repressed) memories of disturbing emotional experiences.

PSYCHIATRY AND REPRODUCTIVE MEDICINE

29th Dec. 2015. Monday.
Gynecology. 5th Yr. Med. Col. Al
Mustansiriya University. Dr. Sami
Adil.

There is gender differences of common psychiatric disorders. Women experience twice as often as men:

Major Depressive Disorder (MDD), panic disorder, Post-Traumatic Stress Disorder (PTSD), Generalized Anxiety Disorder (GAD). The explanations are several including factors like: genetic, hormonal, gender-linked social challenges.

Reproductive events (menarche, menses, pregnancy, delivery, postpartum, and menopause) have normal psychological aspects. We will discuss the abnormal psychological (i.e. psychiatric) disorders that can occur in these events.

PUBERTY is a challenge in intellectual disability (IL), but most females can be learned to take care of their hygiene. Families of females with severe, or profound IL might ask for oral contraceptive pills, or even of Iraq القانون المدني hysterectomy. There is no law in the civil code regarding this issue, and this is a world-wide controversial issue.

PREMENSTRUAL SYNDROME (PMS) AND PREMENSTRUAL DYSPHORIC DISORDER (PMDD):

While both occur in the luteal phase, and resolve within the first or second day of the menses, about 80% of women have PMS, only 5% of women has severe and enough symptoms to diagnose PMDD.

PMS	PMDD
Relatedly old concept	New concept
No dx. criteria in the DSM-5	dx. criteria in the DSM-5
In the ACOG* criteria one symptom is enough for its dx.	In the DSM-5 its criteria is restrictive and resembles the criteria of MDD

No clear guideline for its tr.	Can use analgesics, OC Pills, diuretics, and SSRIs in its treatment.
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*ACOG= American Congress of Obstetrics and Gynecology.

PMS, or PMDD in mentally retarded patients can be expressed a little differently with aggression and self-mutilation. SSRIs can be of help.

PSYCHIATRIC PROBLEMS AND PREGNANCY:

Pregnancy is a time of psychological change and challenge. Relationship with the husband may change in this period. Approximately 30% of domestic violence begins during pregnancy. Miscarriage or stillbirth usually trigger a grief reaction that resolve spontaneously in 6 months.

Women with the diagnosis of schizophrenia are less able to care appropriately for their children, but the evidence support that women with bipolar disorder can care normally for themselves and for their children. It is better to avoid prescriptions (esp. polypharmacy) in the first trimester, but for the cases of schizophrenia, treatment should continue. There is no clear evidence for teratogenic effects for antidepressants nor for antipsychotics, but there is clear evidence of teratogenic effects of mood stabilizers. TCAs or SSRIs do not need to be withdrawn as a matter of routine in early pregnancy. ECT is safe in pregnancy. All psychotropic medications pass into breast milk, generally at 1% of the maternal serum level.

REPRODUCTIVE-LINKED PSYCHIATRIC DISORDERS

Postpartum “blues” are normal self-limiting mood changes experienced by about 50% of women following delivery typically in the first postpartum week. Postpartum blues consists of reactivity of mood, tearfulness, and irritability. Treatment consists of reassurance.

Postpartum psychosis occurs in 0.2% (1 in 500-1000 births) usually within the 1st month. Typical presentation is rapid fluctuation of mood,

perplexity, confusion, and markedly altered behavior. May experience hallucinations, delusions, and inability to sleep. Often, the hallucinations and delusions center on the baby (e.g. believing he is a demon). There is a risk of harming the baby (infanticide). In such cases, prompt intervention may be vital to protect both mother and child. Most will make a complete recovery but remain at very high risk of future similar episodes. The risk factors are:

1. A family hx of puerperal psychosis or of bipolar disorder
2. A past hx of puerperal psychosis or of bipolar disorder

It is hypothesised that the rapid reduction in estrogen levels is linked to the development of dopamine receptor supersensitivity, which may in turn trigger the onset of psychosis in genetically predisposed individuals.

mx. usually they need admission. A combination of an antipsychotic and an antidepressant/or mood stabilizer depending on the predominant symptoms. ECT is effective, safe and rapid. Usually recover in 1-2 months.

Perinatal Depression: In contrast to puerperal psychosis, non-psychotic depression has its peak occurrence at 6 weeks postnatal. It has the same criteria of MDD and coded as one of its subtypes in the DSM-5. It has shorter duration than those at other times. Obsessional symptoms may be prominent, and they take the form of obsessional fears of causing harm to the baby.

Untreated it will have effects on the social and emotional development in the first year of life, and will cause insecure attachment at 18 months, and will affect language skills of the child.

Aetiology: unlike puerperal psychosis, where risks are largely biological, psychosocial factors play a greater part in the development of postnatal depression, and these include:

1. Past hx of depression
2. Psychological problems during pregnancy
3. Poor social support and marital relationships

4. Recent adverse life events

mx. the majority of cases are mild and do not require specific psychiatric interventions. By 9 months, spontaneous recovery usually occurs. SSRIs are used in the severe cases. ECT is used for cases when we want rapid treatment when there is suicidal risk.

INFERTILITY might be associated with low self-esteem and guilt, and if not supported by the family might reach pathological intensity.

MENOPAUSE

Occurring between the ages of 47-53, menopause is a time of heightened risk for depression. The hypoestrogenism that follows can lead to hot flashes, sleep disturbances, vaginal atrophy and dryness, and cognitive and affective disturbances. Absolute levels of sex hormones do not correlate with having depressive symptoms, thus estrogen is not regarded as antidepressant.

Frequent stressors for women at midlife include the following: it coincides with adolescence in children, and with aging in the woman's parents (the woman might be the caregiver to an elderly parent). Women in certain social contexts find themselves less valued as they age. In addition, women may experience the onset of chronic medical illnesses that limit their functioning and change their self-image.

Effective treatment of perimenopausal depressive symptoms can include psychotherapy, antidepressant medication (usually SSRIs), estrogen, and aerobic exercise.

Always remember that the age of 50s is the age of onset of major depressive disorder with melancholic features in both sexes in those who have a genetic predisposition for it.

Case: a 22 years old married female living in a rural in Babylon is presented to you in ". On history التابعة Al-Yarmook psychiatric out-patient clinic saying: "I have a Tab'aa taking she tells you that when she sleep a frightening ugly woman came to her and spits on her belly. Further history revealed that she is infertile, and that she is living

with her husband's family who are blaming her for her infertility. When she came visiting her mother in Baghdad she decided to bring her to you. You didn't find signs of depression. All the patients has is self-blame explained in culturally manner. You explain to her her dream, and you psychoeducate her about infertility and its prevalence, and open the subject of self-blame with her, and advise her to open it frankly with her husband and his family.

References:

Curtis M G, Linares S T, Antoniewicz L (2014) Glass' Office Gynecology 7th Ed.

Sadock B J, Sadock V A, Ruiz P (2015) Synopsis of Psychiatry 11th Ed.

PSYCHOLOGICAL FACTORS AFFECTING OTHER MEDICAL CONDITIONS

It was previously believed that mind and body are two different units (called Cartesian dichotomy), but now it is believed that mind and body are one unit, hence psychological factors must be taken into account when considering all disease states. And medicine started stressing the importance of treating the whole patient not just his or her illness (holistic medicine).

In this lecture we would refer to stress, and the link between life event and body reactions, but since we have already discussed this issue, we will pass it.

Medically Unexplained Symptoms (MUS)

Patients with MUS may receive a medical dx of a so-called functional somatic syndrome, such as irritable bowel syndrome (IBS), and may also merit a psychiatric dx on the basis of the same symptoms. The most frequent psychiatric dx associated with MUS are anxiety or depressive disorders. When these are absent, a diagnosis of somatic symptom disorders may be appropriate.

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i 10.10 Functional somatic syndromes

- Gastroenterology: irritable bowel syndrome, functional dyspepsia
- Gynaecology: premenstrual syndrome, chronic pelvic pain
- Rheumatology: fibromyalgia
- Cardiology: atypical or non-cardiac chest pain
- Respiratory medicine: hyperventilation syndrome
- Infectious diseases: chronic (post-viral) fatigue syndrome
- Neurology: tension headache, non-epileptic attacks
- Dentistry: temporomandibular joint dysfunction, atypical facial pain
- Ear, nose and throat: globus syndrome
- Allergy: multiple chemical sensitivity

EBM 10.26 Antidepressants for medically unexplained somatic symptoms

'There is evidence for the efficacy of antidepressant drugs for patients with medically unexplained symptoms.'

- Sumathipala A. Psychosom Med 2007; 69:889–900.

Psychiatry and functional somatic syndromes:

IBS: TCAs (amitriptyline or imipramine) reduce gastric motility, and hence are regarded as secondary choice in the treatment of IBS with diarrhea. Duloxetine, relaxation therapy, biofeedback, and hypnotherapy are all the last choice for all the three subtypes of IBS.

Coronary disease: some trials of type A behavior modification have shown some benefits. The discussion of the role of stress with those patient helps them understand their diseases.

When measuring B.P. we should always put in our minds the possibility of white coat hypertension.

Respiratory: don't forget panic disorder, and hyperventilation syndrome.

Skin disorders: excoriation, trichotillomania, and delusions of infestations are not rare to be seen in dermatology clinics.

Endocrine: mood disturbance, and psychotic symptoms are seen.

Rheumatology: for the dx. of fibromyalgia, antidepressants, especially sertraline, have shown encouraging results.

Most headache are not associated with significant organic disease. SSRI useful for prophylaxis of migraine. Tension headache antianxiety measures.

Factitious disorder

This describes the repeated and deliberate production of the signs or symptoms of disease to obtain medical care. It is uncommon. An example is the dipping of thermometers into hot drinks to fake a fever. The disorder feigned is usually medical but can be a psychiatric illness, with false reports of hallucinations or symptoms of depression.

Münchausen's syndrome

This refers to a severe chronic form of factitious disorder. Patients are usually older and male, sometimes visiting several hospitals in one day. The history can be convincing enough to persuade doctors to undertake investigations or initiate treatment, including exploratory surgery. Some emergency departments hold lists of such patients. Management is by gentle but firm confrontation with clear evidence of the fabrication of illness, together with an offer of psychological support. Treatment is usually declined but recognition of the condition may help to avoid further iatrogenic harm.

Malingering

Malingering is a description of behaviour, not a psychiatric diagnosis. It refers to the deliberate and conscious simulation of signs of disease and disability. Patients have motives that are clear to them but which they conceal from doctors. Examples include the avoidance of burdensome responsibilities (e.g. court appearances) or the

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PSYCHOPHARMACOLOGY AND ECT

1. Antipsychotics
2. Antidepressants
3. Mood stabilizer
4. Antianxiety and hypnotics (BZ and non-BZ)
5. ECT

Antipsychotics

Used to treat psychosis, e.g. schizophrenia, and depression with psychotic symptoms. Precise mechanism of antipsychotic action is unknown; however, they all block dopamine receptors. Some newer antipsychotic medications also block some serotonin receptors. The newer antipsychotics are more effective in treating the negative symptoms of schizophrenia.

Antipsychotic medication also blocks cholinergic (causes side effects of dry mouth, blurred vision, constipation, confusion "confusion is also called delirium", bradycardia & urine retention), histaminic (causes side effect of sedation), and alpha-adrenergic receptors (causes side effect of postural hypotension and sexual side effects). All these side effects are more common in the old generation of medications.

Dopamine Tracts:

1. Mesolimbic and mesocortical: decrease psychosis.
2. Nigrostriatal: increase movement disorders (extrapyramidal side effects: tremor, bradykinesia, dystonia, akathisia, tardive dyskinesia). The tremor and bradykinesia are sometimes called parkinsonism.
3. Tuberoinfundibular: increase prolactin (dopamine is also called the PIF which means the Prolactin Inhibiting Factor). Increase prolactin leads to galactorrhea, amenorrhea, & gynecomastia.)

The antipsychotics can be classified into 2 main groups:

1. Typical (old, classical) APMs. Pure D2 antagonists. Include low-potency older medication (like chlorpromazine) and high-potency older antipsychotic medication (like haloperidol, phenfluperazine, trifluperazine).
2. Atypical (new): D2, D4, 5HT2 antagonists: Clozapine, Olanzapine, reiperidone, Queiapine (and others). The atypical drugs have less extrapyramidal side effects.

Typical	Atypical
Older agents	Newer agents

Dopamine effects	Dopamine and serotonin effects
Many side effects	Fewer side effects
Treat positive symptoms	Treat positive and negative symptoms

The atypical antipsychotics are now regarded as the first choice in treatment of any psychotic episode.

GENERAL ADVERSE EFFECTS OF ANTIPSYCHOTIC MEDICATION

1. Sedation: due to antihistamine activity.
2. Hypotension: effect is due to alpha-adrenergic blockade and is most common with low-potency APMs (e.g. chlorpromazine).
3. Anticholinergic symptoms: dry mouth, blurred vision (CI in some kinds of glaucoma), urinary hesitancy (CI in old age male with prostatic hypertrophy), constipation, bradycardia, and confusion (=delirium).
4. Endocrine effects: gynecomastia, galactorrhea, and amenorrhea due to blockade of Tuberoinfundibular tract.
5. Dermal and ocular syndromes: photosensitivity, abnormal pigmentation, cataracts, retinitis pigmentosa (retinitis pigmentosa esp. with thioridazine).
6. Other effects: agranulocytosis (with clozapine occur in less than 1% but is a dangerous side effect)
7. Extrapiramidal side effect. (we will discuss these side effects in details):

TYPES OF ACUTE MOVEMENT SYNDROMES

ACTUE DYSTONIA: Presentation: spasms of various muscle groups, typically occurring within hours to days (eg. Corticosis= spasm in neck muscles, or oculogyric crisis= the eyes roll up and they cannot get them

down, etc.). Can be frightening to patient. Treatment: use of anticholinergic medication such as procyclidine, or diphenhydramine. Benzodiazepines are also of help especially because it is available as injections in Iraq. In Iraq we usually use I.V. diazepam to treat the acute dystonic reaction.

BRADYKINESIA (PARKINSONISM): slowed volitional movement, increased muscle tone, and resting tremor. Occur within weeks of treatment.

AKATHISIA: motor restlessness. Takes week to develop. Often mistaken for anxiety and agitation. Treatment: switching to an antipsychotic medication with fewer extrapyramidal side effects (switch to new atypical drugs), and/or decreasing the dosage of antipsychotic medication and/or adding a beta-blocker or benzodiazepine.

TARDIVE DYSKINESIA (TD): Characterized by choreoathetosis and other involuntary movements. Movements often occur first in the tongue or fingers and later involve the trunk. Treatment: use newer antipsychotic medications.

NEUROLEPTIC MALIGNANT SYNDROME: rare and potentially life-threatening condition characterized by muscular rigidity, hyperthermia, autonomic instability, and delirium. Usually associated with high dosages of high-potency antipsychotic medication. CPK is usually diagnostic. Treatment: immediate discontinuation of medication and physiologic supportive measures; dantrolene or bromocriptine may be used.

ANTIDEPRESSANT MEDICATIONS

Used to treat depression but also: various anxiety disorders, bulimia nervosa, enuresis, and chronic pain. All antidepressants increase serotonin and/or norepinephrine in the synapse. All antidepressants

take about 3-6 weeks to work and all have equal efficacy. SSRIs are the first-line due to their lesser side effects. TCAs, and MAOIs (MonoAmine Oxidase Inhibitors) are less used.

Some (esp. TCAs) blocks acetylcholine (muscarinic) and alpha-adrenergic and histamine receptors. TCAs are dangerous in overdose. MAOIs can cause hypertensive crisis when taken with some food.

Examples of TCAs: amitriptyline, imipramine, and clomipramine.

Examples of SSRIs: Fluoxetine, paroxetine, sertraline, fluvoxamine, citalopram and escitalopram. SSRIs have less number of serious side effects, few cardiac effects, few anticholinergic effect, and few hypotensive effects. Significant incidence of agitation, appetite loss, nausea, vomiting, headache, diarrhea, and sexual dysfunction.

Other, New Antidepressants

- Trazodone: markedly sedating, minimal anticholinergic effects, often used to treat depressed patients who have severe insomnia.
- Nefazodone: sedation similar to trazodone, but less sexual dysfunction than SSRIs or trazodone.
- Bupropion: activating, minimal hypotension, minimal cardiac effects, minimal sexual dysfunction; more likelihood of seizures.
- Venlafaxine: profile similar to SSRIs. Approved for use in Generalized Anxiety Disorder (GAD).
- Mirtazapine: profile similar to TCAs. Possibly more rapid onset of antidepressant effect than with SSRIs.
- Duloxetine: profile similar to SSRIs but approved for treatment of neuropathic pain and depression.

MOOD STABILIZING MEDICATIONS

LITHIUM:

Indications of lithium:

- Bipolar and schizoaffective disorders: first –line medication for treatment and prophylaxis of mood episodes.
- Adjunctive treatment of major depressive disorder: may augment responsiveness to antidepressant medications in some patients.

Lithium has narrow therapeutic index and narrow therapeutic window. And is teratogenic .

DIVALPROEX (or called VALPOIC ACID)

Treatment of choice for rapid-cycling bipolar disorder; or when lithium is ineffective, impractical, or contraindicated. Increasingly popular in emergency settings because high doses can be given (not like Lithium). Time course of treatment response is similar to lithium

Side effects: sedation, cognitive impairment, tremor, GI distress, hepatotoxicity, and possible teratogenicity (spina bifida.)

CARBAMAZEPINE

Second-line choice for treatment of bipolar disorder when lithium and divalproex are ineffective or contraindicated. Rare but serious hematologic and hepatic side effects and significant sedation make carbamazepine less useful

Antianxiety agents:

Benzodiazepines (BZs): they activate GABA receptor. Tolerance and dependence may occur. E.g. diazepam, lorazepam, alprazolam, clonazepam, nitrazepam, and chlordiazepoxide. The antagonist at BZ receptor is Flumazenil.

Non-BZ antianxiety and hypnotics: Buspirone (non-sedating) and Zolpidem which is a hypnotic.

ELECTROCONVULSIVE THERAPY (ECT)

Indications:

- Major depressive episodes that have not responded to antidepressant medication or mood stabilizers
- Major depressive episodes with high risk for immediate suicide
- Major depressive episodes in patients with contraindications to using antidepressant medication
- Major depressive episode in patients who have responded well to ECT in the past

ECT in Iraq:

Of the 26 psychiatric hospitals in Iraq, 10 provide ECT (all had no EEG monitoring). Usually general anaesthesia is used, and the main indication is schizophrenia, followed by severe depression, resistant mania, catatonia and others ^{1,2}.

Transcranial magnetic stimulation (TMS) is a therapy in which an electric current is applied to the scalp to generate a magnetic field about 2 cm deep that stimulates cortical interneurons lying parallel to the brain surface. TMS has been approved by the FDA and appears to be useful in patients with major depressive disorder and obsessive–compulsive disorder.

Side effects:

- Transient memory disturbance; it increases in severity over the course of ECT, and then gradually resolves over several weeks.
- Complications of associated anesthesia and induced paralysis
- Transient increased intracranial pressure: therefore, the presence of space-occupying intracranial lesions requires extreme caution.

No absolute contraindication.

References:

1. Alhemiary et al (2014) ECT practices in Iraq: a national audit. BJPsych Bulletin
2. Al-Samarrai M, Khalid U (2010) The Role of Electroconvulsive Therapy in General Hospital Psychiatric Inpatients Treatment in Baghdad. IRAQI J MED SCI, VOL.8 (2):38-44

GENERAL PRINCIPLES OF HUMAN SEXUALITY

Terminology:

Sexual identity: based on the person's sexual characteristics, such as external and internal genitalia, hormonal characteristics, and secondary

sexual characteristics.

Gender identity: based on person's sense of maleness or femaleness, established by the age of 3 and believed to have been determined by parents.

Gender role: the external behavioral patterns that reflect the person's inner sense of gender identity.

Sexual orientation: based on the person's choice of love object; may be heterosexual (opposite sex), homosexual (same sex), bisexual (both sexes), or asexual (no sex).

Masturbation

Previously was thought to cause mental complications and there was a disease termed "masturbation insanity". But it was found later that there is no evidence of such a thing. Now it is not regarded as a disease, nor as a sign of a disease. Some references states that: "All men and women masturbate." Genital self-stimulation begins at the age of 15 to 19 months, with no sexual fantasies present. Commonly seen among adolescents, married couples, and the elderly. Excessive only if it interferes with daily functioning.

Homosexuality

Removed from the DSM in 1980 as a mental illness. Freud believed it was an arrest of psychosexual development. Recent studies indicate it may be due to genetic and biologic causes. Greater incidence among monozygotic versus dizygotic twins.

(N.B. differentiate between homosexuality and gender identity disorder)

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Sexual dysfunctions

A group of disorders related to a particular phase of the sexual response cycle. These disorders can be psychological, biologic, or both, and include desire, arousal, orgasm, and pain.

Phase	Characteristics
Desire	Focuses on the patient's drives, motivation, and desires.
Arousal	Consists of a sense of sexual pleasure with accompanying physiologic changes.
Orgasm	Physiologic state in which sexual tension is released and contractions are produced in various organs.
Pain	Subjective sense of pain associated with the sexual act. Most likely due to dynamic factors.

Phase	Disorder
Desire	<p>Hypoactive sexual desire: patients have a decrease or absence of sexual fantasies, desires, etc.</p> <p>Sexual aversion: a complete aversion to all sexual contact.</p>

Phase	Disorder
Arousal	<p data-bbox="820 280 1332 472">Female sexual arousal: persistent failure to achieve or maintain adequate lubrication during the sexual act.</p> <p data-bbox="836 595 1332 788">Impotence: persistent or recurrent inability to attain or maintain adequate erection until completion of the sexual act.</p>
Phase	Disorder
Orgasm	<p data-bbox="842 909 1332 1155">Female orgasmic: recurrent or persistent inability to achieve an orgasm either through masturbation or sexual intercourse.</p> <p data-bbox="813 1279 1332 1471">Premature ejaculation: Ejaculation before the man wishes to do so, before penetration, or just after penetration.</p>

Phase	Disorder
Pain	<p data-bbox="813 1671 1332 1917">Dyspareunia: pain associated with sexual intercourse in either males or females. Not diagnosed when organic cause has been found or if due to lack of vaginal lubrication.</p>

	Vaginismus: involuntary constriction of the outer one-third of the vagina that interferes with the sexual act.
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TREATMENT OF SEXUAL DYSFUNCTIONS

Phase	Treatment
Desire	<p>Individual psychotherapy to address issues with patient, such as feelings of guilt, poor self-esteem, homosexual impulses, etc.</p> <p>Couples therapy may be indicated if due to marital conflict.</p>
Arousal	<p>Individual psychotherapy to help deal with issues of guilt, anxiety, and fear.</p> <p>Evaluate for use of medications that cause vaginal dryness, such as antihistamines or anticholinergic.</p> <p>Couples therapy if due to marital conflict.</p> <p>To ddx. From biological impotence ask about erection when waking up from sleep (REM sleep is associated with erection)</p>
Orgasm	<p>Individual psychotherapy to help deal with issues of guilt, fear of impregnation, etc. treatment</p>

	<p>includes use of vibrators, education and fantasy.</p> <p>Couples therapy if due to marital conflict.</p> <p>In male with premature ejaculation: use squeeze technique, stop-and-go technique, or SSRIs.</p>
Pain	<p>Individual psychotherapy to help the woman deal with issues of anxiety and tension about the sexual act. Couples therapy if due to marital conflict.</p> <p>Behavioral techniques, such as the use of dilator. Couple therapy if due to marital conflict.</p>

PARAPHILIAS

- A group of disorders that is recurrent and sexually arousing.
- Usually focus on humiliation and/or suffering and the use of nonliving objects, and involve nonconsenting partners.
- Typically occur for more than 6 months and are usually distressing and cause impairment in patient's level of functioning.

Risk factors/ etiology

- Affects men more than women.
- Peak incidence is between the ages of 15 and 25.
- Tend to have other paraphilias, and as the patient ages, the frequency decreases.

Physical and psychiatric presenting symptoms:

- Sexual activity is ritualistic.
- Fantasy is typically fixed and shows very little variation.
- Intense urge to carry out the fantasy.

Treatment:

- Individual psychotherapy is indicated to help the patient understand the reasons why the paraphilia developed.
- Patient also become aware of the daily activities and how they are related to the paraphilic behavior.
- Medications: anti-androgen medications is sometimes use to decrease the libido of these patients so that to decrease their practice of their paraphilias.

Differential Diagnosis: Must distinguish between experimentation and actual paraphilias.

Types of paraphilias:

- Exhibitionism: recurrent urge to expose oneself to strangers.
- Fetishism: involves the use of nonliving objects usually associated with the human body (e.g. a shoe, an underwear).
- Frotteurism: recurrent urge or behavior involving touching or rubbing against a nonconsenting partner.
- Pedophilia: recurrent urges or arousal toward prepubescent (under the age of 13) children. Most common paraphilia.
- Voyeurism: recurrent urges or behaviors involving the act of observing an unsuspecting person who is engaging in sexual activity, disrobing, etc. earliest paraphilia to develop.
- Masochism: recurrent urge or behavior involving the act of humiliation to the self.
- Sadism: recurring urge or behavior involving acts in which physical or psychological suffering of a victim is exciting to the patient.
- Transvestic fetishism: recurrent urge or behavior involving cross-dressing. Usually found in heterosexual men.

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GENDER IDENTITY DISORDER: a disorder characterized by a persistent discomfort and sense of inappropriateness regarding the patient's assigned sex.

Risk factors/ etiology:

- Seen more frequently in men than in women.
- Cause is unknown.

Physical and psychiatric presenting symptoms:

- Children will have a preference for friends of the opposite sex.
- Preoccupied with wearing opposite gender's clothes.
- Believe they were born with the wrong body.
- Routinely request medications or surgery to change their physical appearance.
- Women may bind their breasts, have mastectomies, or take testosterone to deepen the voice.
- Men may have electrolysis to remove body hair and take estrogens to change the voice, and may have surgeries to remove the penis and create a vagina.
- Sexual reassignment surgery is the final treatment but before being approved to be used the patient must go into years of psychotherapy (sometimes 2 years) during which he will be asked to start dressing in the other sex clothes and to make another sex name for himself, if he succeed in that, a new identity card is issued for him, then hormone therapy starts. If he in all that and he is finally regarded as the other sex then surgery can be approved.

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Reference: Kaplan lectu

Psychiatry lecture 5th year

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13th Dec. 2015

SLEEP DISORDERS

Sleep Medicine is now a recognized subspecialty within internal medicine, family medicine, pediatrics, otolaryngology, psychiatry and neurology in the United States.

Normal Sleep

Beta and alpha waves characterize the EEG of the awake individual. Beta seen with concentration and alpha when a person is relaxed with eyes closed. Normally, sleep latency (period of time from going to bed to falling asleep) is less than 20 minutes. Sleep is divided into REM (rapid eye movement) sleep which represents 25% of sleep time and non-REM sleep which takes 75% of sleep time. Non-REM sleep consists of N1, N2, and N3

Mapping the transitions from one stage of sleep to another during the night produces a structure known as sleep architecture (also called sleep hypnogram).

N1 (stage 1): relaxed, eye closed, but still awake. alpha waves. When we start to fall asleep we start to have Theta waves. This takes 5% of total sleep.

N2 (stage 2): there are sleep spindles which are like alpha waves but greater amplitude. There are also K complex where there are very tall signals. They think that those high amplitude K complex are related to suppression of cortical arousal and are important for sleep-based memory consolidation. This takes 45% of sleep

N3 (stage 3 and 4): called delta wave sleep, taller and less frequent waves and not able to wake up. 25% of all sleep is here. Decrease in old age.

REM sleep: 25 % of night spent here. The waves are like those of alpha. Variability of blood pressure and heart rate. Muscle atonia. REM sleep during increase during progress of the night.

REM latency: time measured between falling asleep and onset of REM an usually is 90 minutes in normal people. It is shorter in depression.

Most delta sleep occurs during the first half of the sleep cycle. Longest REM periods occur during the second half of the sleep cycle.

During REM sleep, high levels of brain activity occur. Average time to the first REM period after falling asleep (REM latency) is 90 minutes. REM periods of 10-40 minutes each occur about every 90 minutes throughout the night. A person who is deprived of REM sleep one night (e.g. because of inadequate sleep or repeated awakenings) has increased REM sleep the next night (REM rebound). Extended REM deprivation does not seem to have significant psychopathological changes. Sedative agents, such as alcohol, barbiturates, and benzodiazepines, also are associated with reduced REM sleep and delta sleep.

Neurotransmitters are involved in the production of sleep. Increased levels of acetylcholine (ACh) in the reticular formation increase both total sleep time and REM sleep. Acetylcholine levels, total sleep time and REM sleep decrease in normal aging

as well as in Alzheimer disease. Increased levels of dopamine decrease total sleep time. Treatment with antipsychotics, which block dopamine receptors, may improve sleep in patients with psychotic symptoms. Increased levels of norepinephrine decrease both total sleep time and REM sleep. Increased levels of serotonin increase both total sleep time and delta sleep. Damage to the dorsal raphe nuclei, which produces serotonin, decreases both of these measures. Treatment with antidepressants, which increase serotonin availability, can improve sleep in depressed patients.

CLASSIFICATION OF SLEEP DISORDERS

The Diagnostic and Statistical Manual of Mental Disorders, 4th edition Text Revision (DSM-IV-TR), classifies sleep disorders into two major categories.

- A. Dyssomnias are characterized by problems in the timing, quality, or amount of sleep. They include insomnia, breathing-related sleep disorder (sleep apnea), and narcolepsy, as well as circadian rhythm sleep disorder, nocturnal myoclonus, restless leg syndrome, and the primary hypersomnias (e.g., Kleine-Levin syndrome and menstrual-associated syndrome).
- B. Parasomnias are characterized by abnormalities in physiology or in behavior associated with sleep. They include bruxism (tooth grinding) and sleepwalking, as well as sleep terror, REM sleep behavior and nightmare disorders.

DYSSOMNIA:

INSOMNIA

Is difficulty falling asleep or staying asleep that occurs three times per week for at least 1 month and leads to sleepiness during the day or causes problems fulfilling social or occupational obligations. It is present in at least 30% of population.

Causes of insomnia are classified to psychological and physical causes. Psychological causes of insomnia include the affective (mood) and anxiety disorders.

Psychological causes:

1. Major depressive disorder: characteristics of the sleep pattern in depression are: normal sleep onset; repeated nighttime awakenings; and the most common sleep characteristic of depressed patients is waking too early in the morning (terminal insomnia). Characteristics of sleep stages in depression are: short REM latency (appearance of REM within about 45 minutes of falling asleep); increased REM early in the sleep cycle and decreased REM later in the sleep cycle (e.g., in the early morning hours) may lead to waking

to early in the morning; long first REM period and increased total REM; and reduced delta sleep.

2. Bipolar disorder. Manic or hypomanic patients have trouble falling asleep and sleeping fewer hours.
3. Anxious patients often have trouble falling asleep.

Physical causes of insomnia:

1. Use of CNS stimulants (e.g., caffeine) is the most common cause of insomnia.
2. Withdrawal of agents with sedating action (e.g., alcohol, BNZ, and opiates) can result in wakefulness.
3. Medical conditions causing pain also result in insomnia, as do endocrine (hyperthyroidism) and metabolic disorders. GI reflux disease also can cause insomnia.

Treatment of insomnia:

- Sleep Hygiene: Avoidance of caffeine (half life 3-6 hours), especially before bedtime, maintaining a fixed sleeping and waking schedule, taking a hot bath before sleep, drinking a glass of milk or yoghurt before sleep, daily exercise (but not just before sleep), dark room, do not read, work, watch TV in bed, avoid daytime naps, avoid eating 1-2 hrs before bed, and relaxation techniques.
- Psychoactive agents: the use of BNZ should be limited. Antidepressants and antipsychotics can be used when appropriate. BNZ-like drugs like zolpidem.

Breathe-Related Sleep Disorder (Sleep Apnea)

Patients with sleep apnea stop breathing for brief intervals. Low oxygen or high carbon dioxide level in the blood awaken the patient repeatedly during the night, resulting in daytime sleepiness. It is classified to central and obstructive sleep apnea.

In patients with central sleep apnea (more common in the elderly), little or no respiratory effort occurs, resulting in less air reaching the lungs. In patients with obstructive sleep apnea, respiratory effort occurs, but an airway obstruction prevents air from reaching the lungs. Obstructive sleep apnea occurs most often in people 40-60 years of age, and is more common in men (8:1 male-to-female ratio) and in the obese. Patients often snore with long pauses.

Sleep apnea occurs in 1%-10% of the population and is related to depression, headaches, and pulmonary hypertension. It also may result in sudden death during sleep in the elderly and in infants.

Treatment: weight loss (if overweight). Continuous positive airway pressure (CPAP), ENT surgery.

Narcolepsy

Prevalence of 0.025% in the general population. Some of early psychiatrists thought that narcolepsy is a type of hysteria (conversion). Then it was found to be associated with HLA-DQB1*0602, then it was found that they have hypocretin deficiency, and nowadays there is some evidence that it is autoimmune disease.

Patients with narcolepsy have sleep attacks (i.e., fall asleep suddenly during the day) despite having a normal amount of sleep at night. Narcolepsy is characterized by: (i) hypnagogic or hypnopompic hallucinations. These are strange perceptual experiences that occur just as the patient falls asleep or wakes up; (ii) Decreased sleep latency, very short REM latency; (iii) Cataplexy: this is a sudden physical collapse caused by the loss of all muscle tone after a strong emotional stimulus (e.g., laughter, fear) and (iv) Sleep paralysis: this is the inability to move the body for a few seconds after waking.

Narcolepsy is uncommon. It occurs most frequently in adolescents and young adults. There may be a genetic component. Daytime naps leave the patient feeling refreshed.

Treatment:

1. scheduled daytime naps help in the treatment
2. stimulant agents (e.g., methylphenidate, modafinil if cataplexy is present, and
3. antidepressants usually tricyclic antidepressants (most used imipramine) because they suppress REM may be added. .

Circadian rhythm sleep disorders: inability to sleep at appropriate times. Delayed sleep phase type involve falling asleep and waking later than wanted. Jet lag type lasts 2-7 days after a change in time zones. Shift work type (e.g., in physician training) can result in physician error.

Periodic Limb Movement Syndrome (PLMS) or called Nocturnal myoclonus: repetitive, abrupt muscular contractions in the legs from toes to hips. Causes nighttime awakenings. More common in the elderly. No treatment is universally effective. There might be some benefit from benzodiazepines, levodopa, or quinine.

Restless leg syndrome (RLS): uncomfortable sensation in the legs necessitating frequent motion. Causes difficulty falling asleep and nighttime awakenings. More common with aging, pregnancy, and kidney disease and iron or vitamin B12 deficiency. The first step in the treatment is looking for anemia and treating it if found. Benzodiazepines are ineffective. L-dopa is of some benefit. Ropinirole, a dopamine agonist already available for treatment of Parkinson's disease, is now the

first drug approved by the FDA for treatment of moderate to severe RLS. Other medications used are clonazepam, cabergoline, levodopa, clonidine, and gabapentin.

Primary hypersomnias [Kleine-Levin syndrome and menstrual-associated syndrome (symptoms only in the premenstrum)]: recurrent periods of excessive sleepiness occurring almost daily for at least 1 month. Sleepiness is not relieved by daytime naps. Often accompanied by hyperphagia (overeating). Kleine-Levin syndrome is more common in adolescent males. Treatment: stimulants are only effective for short periods of time, hence reserved only for symptomatic periods.

PARASOMNIAS:

Sleepwalking disorder: No memory of the episode on awakening. Begins in childhood (usually 4-8 years of age). Occurs during delta sleep. These activities can be as benign as sitting up in bed, walking to the bathroom, and cleaning, or as hazardous as cooking, driving, having sex, violent gestures, grabbing at hallucinated objects, or even homicide. Treatment consists of reassuring the parents that the child is normal and this is developmental and will disappear with age, and advice to take safety measures, e.g., sleeping in the first floor, locking the door, etc. and not to insist on awakening the child. Medication is only used for patients with frequent episodes/high-risk behaviours: small dose of a benzodiazepine (e.g. clonazepam) because it decreases delta sleep, or antidepressant (imipramine, paroxetine) at night.

There are very rare and controversial cases of crimes during sleepwalking, hence the branch: forensic sleep medicine.

Sleep terror disorder: repetitive experience of fright in which a person (usually a child) screams in fear during sleep. Patient seems awake since his eyes are opened but actually he is in delta sleep. The person is difficult to be awakened. The person has no memory of having a dream. Onset in adolescence may indicate temporal lobe epilepsy. Treatment includes reassurance and advice not to try to awaken the patient but to take him softly back to bed. If the episodes are frequent use similar methods as for sleepwalking.

REM sleep behavior disorder: REM sleep without skeletal muscle paralysis leading to movements which are sometimes violent. Patients can injure themselves or their sleep partners. Treatment: ensure a safe sleeping environment. Sometimes clonazepam can be of help.

Nightmare disorder: repetitive, frightening dreams that cause nighttime awakenings. It is related to PTSD. The person usually can recall the nightmare.

Occurs during REM sleep. Tricyclic antidepressants (imipramine is the most used) usually suppress REM sleep, hence are sometimes used as a treatment in patients with high recurrence. Prazosin, an alpha-blocker used in hypertension treatment, is also of help here.

Sleep paralysis: the frightening experience of being unable to perform voluntary movements either at sleep onset or awakening. As an isolated phenomenon, reported to occur at least once in lifetime of 40-50% of normal individuals. As a chronic complaint, however, it is much less common. In our culture it is called Jathum جاثوم أو جيثوم and linked to Jinn possession. It is sometimes associated with out-of-body experience. Treatment: sleep hygiene may help to prevent the episodes. Persistent problems may respond to REM-suppressant medication (e.g. clomipramine 25 mg or an SSRI).

Bruxism: tooth grinding during sleep (stage 2). Can lead to tooth damage and jaw pain. Treated with dental appliance worn at night or corrective orthodontia.

Attention Deficit Hyperactivity Disorder

Pediatrics. Child Psychiatry. Wednesday 8th
Dec. 2015. Al Mustansiriya. Dr. Sami Adil

ADHD is a neuropsychiatric condition starting since childhood characterized by diminished sustained attention, and increased impulsivity or hyperactivity. ADHD significantly affects academic functioning, as well as social and interpersonal functioning.

It is clearly biological but the exact cause is still not clear, yet it is hypothesized to be caused by disturbed dopamine function in the prefrontal cortex.

Epidemiology:

Affects 5% of school-aged children and 50% continue to have symptoms as adults (2.5% of adults). More in males than in females.

Etiology:

Largely genetic. Heritability of 75%. 2-8 times increased risk in first degree relatives. Normal CNS structure. Dysfunction in the prefrontal cortex and dopamine has been theorized.

Diagnostic Criteria:

Inattention:

The child fails to attend to detail, has difficulty sustaining attention, does not follow through, has difficulty organizing tasks, is easily distracted, and is reluctant engaging if requires sustained mental effort.

Hyperactivity:

The child often fidgets **يتلملم**, leaves seat in classroom, runs and climbs excessively, and is often on the go;

Impulsivity:

The child often blurts out answer, has difficulty waiting turn, and often interrupts.

For diagnosis to be made these symptoms must be present for at least 6 months, onset before age 12 years plus evidence of impairment in 2 settings (e.g. school and home).

DSM 5 specifiers:

1. Combined presentation,
2. Predominantly hyperactive/impulsive, and
3. Predominantly inattentive.

DDx.

1. Petit mal epilepsy
2. Hearing and visual impairment
3. Thyroid abnormalities
4. Hypoglycemia
5. Normal child, especially before the age of 3 years.
6. Bipolar
7. Conduct disorder
8. Learning disability
9. Specific learning disorders

Course and prognosis

Fifty percent of patients have remission between the ages of 12 and 20. The other 50% continue to have symptoms as adults. They are more predisposed to antisocial behavior, substance use disorders, and mood disorders.

Treatment:

Pharmacotherapy is the 1st line. CNS stimulants are 1st choice, but they are contraindicated in children with cardiac problems. The stimulants used are: methylphenidate and dextroamphetamine (both are dopamine agonists). Vyvanse is a pro-drug of dextroamphetamine that is FDA approved for children 6 years and older.

Nonstimulant medication approved by the FDA for ADHD is atomoxetine (a norepinephrine uptake inhibitor).

Other drugs: alpha-agonists like clonidine and guanfacine are both FDA approved for children above 6 years of age.

Notes on drugs:

Amphetamines exacerbate motor tics, can also cause growth suppression (to decrease the risk of growth suppression we give “drug holidays” on weekends or summers).

Atomoxetine can cause disturbance in blood pressure, and liver functions hence we should check for this.

Psychosocial interventions include psychoeducation for child and parents, structuring the environment, and CBT. Children with ADHD do not benefit from exemption from normal requirements and expectations.

Reference:

Synopsis of Psychiatry 11th Edition (2015) Kaplan and Sadock

Autistic spectrum disorder (ASD) is characterized by:

- Impairments in social communication
- ritualistic ,restricted, repetitive behaviors (RRBs)

Pediatrics lecture: child psychiatry.
Tuesday 8th Dec. 2015. Dr. Sami Adil

Typically evident during 2nd year of life. May be noted earlier, or later, according to severity. When a child does not start producing language at 12-18 months of age we should take that seriously. Thirty percent of patients with ASD have intellectual disability (ID).

Epidemiology: approx. 1 % in the USA. Four times more common in boys

Etiology of autism:

No single cause of autism is found till now, there are many factors that have been found:

1. Genetic factors (concordance rate higher in MZ than DZ, but studies differ in numbers). It seems that it is polygenetic (i.e. not related to only one single gene). Some known genetically caused syndromes include ASD as part of their phenotype: e.g. Fragile X is present in 2-3 % of individuals with ASD, and 2% of children with ASD also have tuberous sclerosis.
2. Biomarkers: several markers of abnormal signaling in the serotonin system, the mTOR-linked synaptic plasticity mechanism, and alterations of the GABA system. Both structural and functional neuroimaging studies have suggested specific biomarkers: e.g. (structural: total brain volume, head circumferences, size of amygdala, size of striatum) (functional: tasks of face perception, different areas activated during tasks involving “theory of mind” which is hypothesized to represent dysfunction of mirror neuron system).
3. Immunological factors (blood group incompatibility, maternal antibodies)
4. Prenatal and perinatal factors (Prenatal: advances maternal and paternal age, maternal gestational bleeding, gestational diabetes, and first born baby) (perinatal: umbilical cord cx, birth trauma, fetal distress, small for gestational age, low birth wt, low 5-minute Apgar score, congenital malformation, blood group

incompatibility, and hyperbilirubinemia) no sufficient evidence to implicate any of those factors.

5. Comorbid neurological disorders (patients with ASD have more than usual EEG abnormalities, and seizure disorders)

6. Psychosocial theories (clearly refuted مدحضنة) the recent evidence shows no difference in child-rearing skills.

DSM 5 dx and clinical features:

The DSM 5 states that both these two must be present since childhood and that they cause dysfunction:

1. Persistent deficits in social communication and interaction.
2. Restricted, repetitive patterns of behavior (RRB)

Clinical features:

Deficits in social communication: they may not develop social smile, lack anticipatory posture for being picked up, poor eye contact, atypical attachment behavior, no strong stranger's anxiety, lack of theory of mind, poor friendships at school. Language is monotonous with poor prosody, and pronoun reversal.

RRB: poor exploratory and symbolic play. They enjoy spinning. They develop strong attachment to a particular inanimate object. Compulsions: lining up objects. They may have self-injurious behavior and stereotypies. They don't like changes in routines.

Other clinical features:

Thirty percent of patients with ASD have Intellectual Disability

Irritability is a major sign and is the target of pharmacotherapy as we will see in tr. Abnormal response to sensory stimuli (overrespond to sound, and underrespond to pain). Hyperactivity and inattention are common. Insomnia is a frequent problem. Some of ASD patients develop precocious skills (great memory, musical abilities, hyperlexia, or calculating abilities).

DDx.

1. Hearing disorder
2. Schizophrenia with childhood onset
3. Psychosocial deprivation
4. Intellectual disability syndromes

Course and prognosis

It is lifelong disorder. Variable severity. Best prognosis is for those who have IQ above 70, and develop language by ages 5 to 7 years.

Treatment:

- A. Psychosocial interventions:
 1. Early intensive beh. & developmental Interventions: and this may involve also training the parents for special skills.
 2. Social Skills Approaches
 3. Behavioral Interventions and CBT for RRBs and Associated Symptoms:
 4. Special schooling.
- B. Psychopharmacological interventions

Mainly directed to treat associated behavioral symptoms (irritability, aggression, hyperactivity etc.), but not the core features of autism.

Irritability: two 2nd generation antipsychotics are FDA approved (risperidone and aripiprazole). Risperidone is also effective for repetitive stereotypic behavior. Aripiprazole is also effective for self-injury, tantrums, and aggression.

For hyperactivity, impulsivity, and inattention, the used of methylphenidate is moderately helpful.

For insomnia, the use of melatonin has shown efficacy.

References:

Synopsis of Psychiatry 11th Ed. (2015) Kaplan and Sadock's