Manual of Basic Psychiatry

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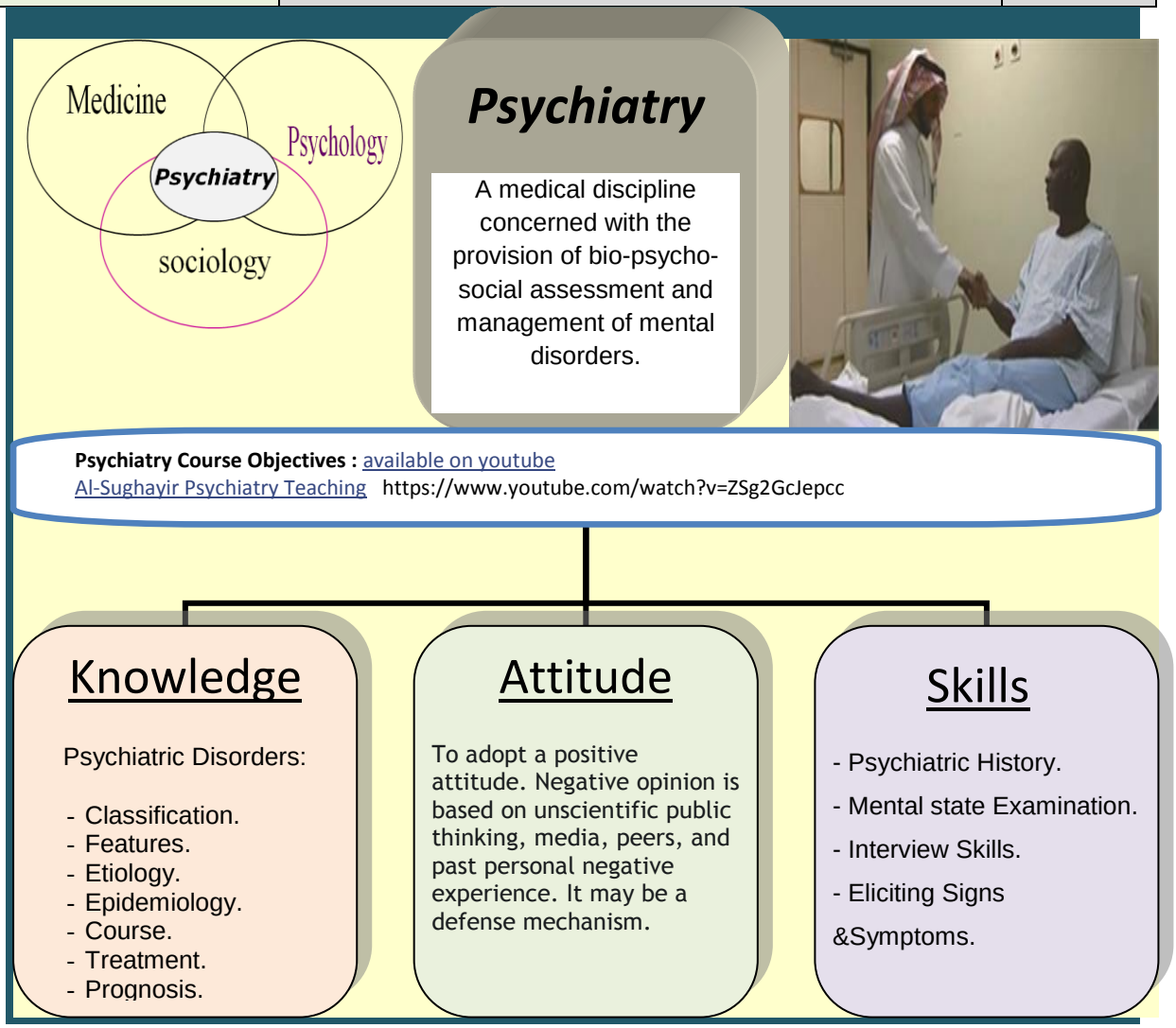
Thanks and respect to medical students at College of Medicine, King Saud University, Riyadh, KSA & Google images. The cases in this manual are simulated

"Al-Sughayir Psychiatry Teaching قناة يوتيوب : " تعليم الطب النفسي
https://www.youtube.com/channel/UCi6_Wr8Et9FXCV6UHii4U7A



	Negative attitude	**Positive attitude**
Etiology	Vague/due to poor adherence to religion/always due to supernatural causes.	Many aspects have been scientifically explored & approved >>> good Rx.
Diagnosis	Subjective / unscientific.	Objective criteria & Scales.
Medications	Deleterious / addictive.	Benefit > risk in general.
Prognosis	Always bad.	There are many disorders with good prognosis.
Patients	Mad / bad / sad / aggressive / not easy to like / have low faith in Allah.	Human beings deserve respect.
Clinicians	Mentally unstable because of patients.	Like other clinicians but some may.. !?

Importance of Psychiatry Clerkship

One of the essential qualities of the clinician is interest in humanity.

Training in psychiatry will expand your understanding of the spectrum of human perception, thinking, emotion, and c behavior.

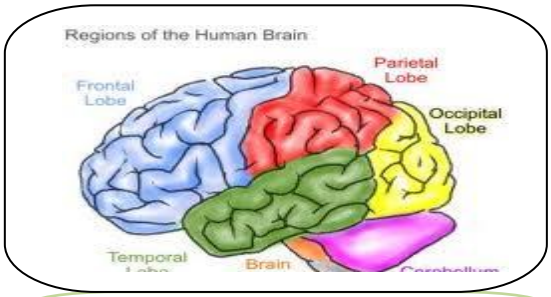
This will serve you well in self-awareness, interpersonal relationships, and patients' care.

Whatever medical specialty you choose in the future, training in psychiatry will upgrade your clinical skills in:

- Putting the patient at ease.
- Recognizing the patient's state of mind.
- Understanding the patient's suffering.
- Expressing empathy for the patient's suffering.
- Establishing good rapport with you patient.

Before Psychiatry Clerkship

- Neuroanatomy.
- Neurophysiology
- Neurotransmitters
- Clinical Psychology



It is advisable to review these basics.

See Basic Psychiatry chapter 1.

2- Diagnosis & Classification in Psychiatry

Diagnosis & Classification in Psychiatry : available on youtube
Al-Sughayir Psychiatry Teaching https://www.youtube.com/watch?v=dziwfgZyCPo

Significance of Dx & Classification:

1. To distinguish one diagnosis from another.
2. To enable clinicians to communicate with one another about dx, treatment and prognosis.
3. To ensure that psychiatric research can be conducted with comparable groups of patients.

Organic vs. Functional Classification : in everyday psychiatric practice the distinction between **organic** (neurocognitive) and **functional** mental disorders is still commonly used and useful in the management.

Organic Mental Disorders: psychiatric disorders characterized by neurocognitive structural brain pathology that can be detected by clinical assessment or usual tests. E.g. delirium, dementia, substance-induced mental disorders, and medication-induced mental disorders.

Features Suggestive of Organic Mental Disorders *(CNS pathology);*
Disturbed consciousness +/- other cognitive disturbance in: attention, concentration, orientation or memory. Physical illness (e.g. diabetes, hypertension). Vital signs disturbances (e.g. fever, high BP). Neurological features (e.g. ataxia, dysarthria).

Non-organic (functional) Mental Disorders:

No obvious structural brain pathology**.** E.g. Schizophrenia, mood disorders, anxiety disorders, adjustment disorders.

Psychosis vs. Neurosis Classification: although this classification is no longer used in the official current systems of classification (DSM & ICD), in everyday clinical practice these terms are still used widely; hence it is of practical value to know this distinction.

Psychoses (pleural of psychosis -الذهان)	**Neuroses** (pleural of neurosis -العُصاب)
	
Mental disorders in which the patient lacks insight and is unable to distinguish between subjective experience and external reality, as evidenced by disturbances in thinking (delusions), perception (hallucinations), or behavior (e.g. violence). Examples: schizophrenia, severe mood disorders, delusional disorders. It can be due to an organic cause (organic psychosis) e.g. delirium, dementia, substance abuse, head injury. Features are abnormal in quality (e.g. delusions, hallucinations).	Generally less severe forms of psychiatry disorders in which the patient is able to distinguish between subjective experience and external reality. No lack of insight, delusions or hallucinations. Examples: dysthymic disorder, anxiety, panic & phobic disorders. Features are abnormal in quantity (e.g. excessive fear and avoidance).

DSM-5 Classification (May 2013) is an evidence-based manual useful in accurately and consistently diagnose mental disorders. In preparation for the release of DSM-5, experts from psychiatry, psychology, social work, neuroscience, pediatrics and other fields have committed years to reviewing scientific research and clinical data, analyzing the findings of extensive field trials and reviewing thousands of comments from the public. DSM-5 represents the contributions of more than 700 distinguished mental health and medical experts during an extensive and rigorous 14-year development process.***(Source: http://www.dsm5.org/)***

DSM-5 Categories

- Neurocognitive Disorders
  - Delirium
  - Mild Neurocognitive Disorders
  - Major Neurocognitive Disorders
- Schizophrenia Spectrum and Other Psychotic Disorders
  - Schizophrenia
  - Brief Psychotic Disorder
  - Schizophreniform Disorder
  - Schizoaffective Disorder
  - Delusional Disorder
  - Substance/Medication-Induced Psychotic Disorder
  - Psychotic Disorder Due to Another Medical Condition
  - **Catatonia**
- Bipolar and Related Disorders
  - Bipolar I & II Disorders
  - Cyclothymic Disorder
  - Substance/Medication-Induced Bipolar and Related Disorder
  - Bipolar and Related Disorder Due to Another Medical Condition
- Depressive Disorders
  - Disruptive Mood Dysregulation Disorder
  - Major Depressive Disorder, Single and Recurrent Episodes
  - Persistent Depressive Disorder (Dysthymic Disorder)
  - Premenstrual Dysphoric Disorder
  - Substance/Medication-Induced Depressive Disorder
  - Depressive Disorder Due to Another Medical Condition
  - Other Specified Depressive Disorder
  - Unspecified Depressive Disorder
- Anxiety Disorders
  - Panic Disorder
  - Agoraphobia
  - Social Phobia
  - Specific Phobia
  - Generalized Anxiety Disorder
  - Separation Anxiety Disorder
  - Selective Mutism
  - Substance/Medication-Induced Anxiety Disorder
  - Anxiety Disorder Due to Another Medical Condition
- Obsessive-Compulsive and Related Disorders
  - Obsessive-Compulsive Disorder
  - Body Dysmorphic Disorder
  - Hoarding Disorder
  - Trichotillomania (Hair-Pulling Disorder)
  - Excoriation (Skin-Picking) Disorder
  - Substance/Medication-Induced Obsessive-Compulsive and Related Disorder
  - Obsessive-Compulsive and Related Disorder Due to Another Medical Condition
- Trauma- and Stressor-Related Disorders
  - Adjustment Disorders
  - Acute Stress Disorder
  - Posttraumatic Stress Disorder
  - Reactive Attachment Disorder
  - Disinhibited Social Engagement Disorder
  - Other Specified Trauma- and Stressor-Related Disorder
- Somatic Symptom and Related Disorders
  - Somatic Symptom Disorder
  - Illness Anxiety Disorder
  - Conversion Disorder (Functional Neurological Symptom Disorder)
  - Psychological Factors Affecting Other Medical Conditions
  - Factitious Disorder
  - Other Specified Somatic Symptom and Related Disorder
- Dissociative Disorders
  - Dissociative Identity Disorder
  - Dissociative Amnesia
  - Depersonalization/Derealization Disorder
  - Other Specified Dissociative Disorder
- Personality Disorders
- Neurodevelopmental Disorders
  - Intellectual Disabilities
  - Communication Disorders
  - Autism Spectrum Disorder
  - Attention-Deficit/Hyperactivity Disorder
  - Specific Learning Disorder
  - Motor Disorders
  - Other Neurodevelopmental Disorders
- Feeding and Eating Disorders
  - Pica - Rumination Disorder
  - Avoidant/Restrictive Food Intake Disorder
  - Anorexia Nervosa - Bulimia Nervosa
  - Binge-Eating Disorder
  - Other Specified Feeding or Eating Disorder
- Elimination Disorders
  - Enuresis
  - Encopresis
  - Other Specified Elimination Disorder
- Sleep-Wake Disorders
  - Insomnia Disorder
  - Hypersomnolence Disorder
  - Narcolepsy
  - Breathing-Related Sleep Disorders
  - Obstructive Sleep Apnea
  - Central Sleep Apnea

3- Etiology in Psychiatry

Etiology in Psychiatry : available on youtube
Al-Sughayir Psychiatry Teaching https://www.youtube.com/watch?v=Vnpl5HC5KZY

The Complexity of etiology in Psychiatry

1. Time factor: causes are often remote in time from the effect they produce.
2. Single cause may lead to several psychological effects e.g. deprivation from parental affection may lead to depression or conduct disorder in children and adolescents.
3. Single effect may arise from several causes e.g. depression may be due to accumulation of several causes like endocrinopathies, psychosocial stresses and side effects of some drugs. Most psychiatric disorders are multifactorial.

Classification of Causes

Etiological Factors can be classified into biological, psychological, and social factors; *Bio-Psycho-Social Approach* [Engel 1977]:

Effect / Nature		**Effect**			
		Predisposing	**Precipitating**	**Aggravating**	**Maintaining**
NATURE	***Bio***	E.g. Genetic predisposition e.g. panic disorder	E.g. First dose of cannabis abuse	E.g. Further abuse	E.g. Continuation of cannabis abuse
	Psycho	E.g. Abnormal personally traits with poor stress adaptation	E.g. Sudden or severe psychological stress	E.g. Further psychological stresses	E.g. Continuation of such stresses
	Social	E.g. Parental separation	E.g. Marriage	E.g. Marital conflict	E.g. continuation of marital problems

Main causative factors in psychiatry:

A. **Genetic :** e.g. in schizophrenia , mood disorders , panic disorder and agoraphobia.
B. **Neuropathological**: e.g. dementias ,delirium.
C. **Endocrinopathological**: e.g. hyperthyroidism / hypothyroidism.
D. **Pharmacological**: side effects of medications e.g. steroids > mood changes.
E. **Social**: e.g. marital discord /occupational problems/financial difficulties.
F. **Psychological** : behavioral ,cognitive , or psychodynamic problems (subconscious processes that involve distortion of reality in order to deal with, and resolve the intra-psychic conflict (defense mechanism).

Supernatural causal attributions; although many cultures view black magic (sorcery), evil eye, and devil possession hidden causes of mental diseases it is impossible to subjects such supernatural matters to empirical research.

الأسباب الغيبيّة : المس والسحر والعين
Supernatural Causes

في الشرع

١ - تأثيرها على صحة البشر ثابت.

٢ -أما الكيفية والعلامات لكل منها فلم يرد فيها تفصيل بخلاف ما يفعله كثير من الرقاة.

٣ -الرقية الشرعية للاستشفاء لا لتشخيص الأمراض وأسبابها.

في المجتمع

١ - النظرة الاجتماعية لا تمثل الشرع (لا تطابق تماما و لا تخالف تماما).

٢ - مبالغة وتعميم وقلة علم بالشرع وبالطب.

٣ - وسيلة شهرة وتكسب و ...

Etiology in Psychiatry - Prof. Alsughayir 2007

الأسباب الغيبيّة : المس والسحر والعين
Supernatural Causes

تساؤلات

١ - هل الطب النفسي ينكر السحر / المس/ العين ؟

٢ - هل السحر والمس والعين تسبب أمراضاً نفسية أم لا ؟

٣ - هل تستطيع أن تضبط أعراضها وتعزلها عن الأمراض النفسية؟

٤ - هل يكتفى بالرقية الشرعية في علاج الحالات النفسية ؟

هل .... هل .... هل ...

آثار سلبية للتخبط في هذا المجال:

١ - حرمان المرضى من العلاج الطبي السليم.

٢ - التدخل في التشخيص والجزم بناء على خبرات شخصية.

٣ - التدخل في طريقة التداوي دون مسئولية.

٤ - إيذاء المرضى بالضرب والكهرباء وغيرها.

٥ - تجاوزات أخلاقية / مالية / اجتماعية ...

Etiology in Psychiatry - Prof. Alsughayir 2007

صحيفة عاجل الإلكترونية:

(٢٨/٨/ ١٤٣٥) تمكنت وحدة مكافحة السحر والشعوذة بهيئة الأمر بالمعروف والنهي عن المنكر في المدينة المنورة، من القبض على شاب يمارس الرقية الشرعية عبر المواقع الإلكترونية. وجاء ذلك بعد تورط الشاب الذي يقطن في إحدى الدول الخليجية، بالتحرش بفتاة في العقد الثالث بالمدينة المنورة مستغلًا معاناتها مع السحر. وفقًا لما أوردته صحيفة "عكاظ" الخميس (٢٦ يونيو ٢٠١٤. وفي التفاصيل، أبلغت الفتاة عن تعرضها للتحرش من قبل شخص يدعي الرقية الشرعية، ويملك موقعًا على شبكة الإنترنت، ويقطن في دولة خليجية بالإضافة إلى المشاركة في عدة برامج في تلفزيون البلد المضيف له. وقالت الفتاة إنها عندما تواصلت معه طالبة العلاج، عرض عليها مقابلتها والخلوة بها. وبناء عليه تم إعداد كمين محكم للقبض عليه، حيث طلب أعضاء الهيئة من الفتاة التواصل مع الراقي، وبعد أن أوهمته بقبول طلبه بمقابلتها وحضر إلى المدينة المنورة واستأجر شقة بطريق المطار، وأثناء انتظاره حضور الفتاة تم القبض عليه.

المبالغة في العين والسحر والمس: يبالغ بعض الناس في عزو أسباب العلل النفسية إلى العين والسحر متجاهلين دور العوامل الأخرى التي قد تسبب الأمراض النفسية وهي كثيرة ومتنوعة. فالوراثة لها دور كبير في عدد من الأمراض النفسية كالفصام العقلي واضطرابات الوجدان ونوبات الهلع والوسواس القهري وغير ذلك مما أوضحته دراسات عالمية علمية متعددة وكذا الضغوط الاجتماعية والمادية والنفسية لها دور في ذلك (كشقاق الوالدين وانفصالهما وخلافات الأبناء مع الآباء والخلافات الزوجية ونحو ذلك). والأمراض الجسدية العضوية كذلك سواء أثرت على الدماغ مباشرة (كأورام والتهابات الدماغ) أو أثرت على بعض الأعضاء الحيوية (كالقلب أو الكبد أو الكلى أو الرئتين) وغير ذلك.

جعل الرقية وسيلة تشخيص : الرقية دعاء و تضرع إلى الله تعالى أن يكشف المرض ، ولم يجعلها الله تعالى وسيلة للتشخيص وطريقة لاختبار أسباب المرض كما يفعله بعض الرقاة اليوم ممن توسعوا في تنويع طريقة الرقية والآيات المستخدمة فيها على نحو يريدون من خلاله الوصول إلى معرفة سبب المرض (أهو عين أم مس أم سحر)، ولذا كثُر اختلافهم فيما بينهم في الحالة الواحدة بل إن الراقي نفسه قد يشخص اليوم تشخيصاً ينقضه في غده ثم ينقضه أخرى وذلك لأجل اعتماده على تأثر المريض بآيات دون غيرها في كل مرة وجعل ذلك وسيلة لتشخيص المرض فإن تأثر المريض عند قراءة آيات السحر شُخِّص بأنه مسحور وإن تأثر عند قراءة ما يتعلق بالعين شُخِّص بأنه مصاب بعين وهكذا مع المس وإن تأثر بذلك كله شُخِّص بأنه مصاب بالثلاثة (سحر وعين ومس).

هل الرقية محصورة في أناس دون غيرهم ؟: يظن كثير من الناس أن الرقية لا تنفع إلا إذا كانت من راق مختص بها وأن المريض إذا كان ذا ذنوب ومعاصٍ فلا ينتفع برقيته على نفسه أو أن للرقية طريقة معقدة مفصلة لاتعرف إلا بدراسة خاصة أو خبرة معينة، ولذا فإن كثيراً منهم يذهب يطلب الرقية عند الرقاة وقد يسافر إليهم في بلاد بعيدة ويظن أن الرقية من هؤلاء لها شأن مختلف من حيث قوة التأثير وسرعته. ويهمل كثير من الناس الاستشفاء بالقرآن مباشرة والرقية الشرعية على أنفسهم دون وسيط. والصواب أن الرقية ليست محصورة في أناس دون غيرهم وكلما قوي تضرع المريض إلى الله تعالى صار مظنة الاستجابة وقد قال الله تعالى: {أَمَّن يُجِيبُ الْمُضْطَرَّ إِذَا دَعَاهُ وَيَكْشِفُ السُّوءَ} [النمل: ٦٢].

هل يُكتفى بالرقية في علاج الحالات النفسية وهل يجوز التداوي بالأدوية النفسية؟ الرقية الشرعية سبب عظيم من أسباب الشفاء للأمراض كلها (نفسية وجسدية) ولا تعارض الرقية الأسباب الأخرى المباحة والتي منها الأدوية النفسية، والعبد مأمور ببذل الأسباب المباحة (سواء كانت شرعية أو طبية) وقد أباحت الشريعة التداوي للعلل النفسية بالمباح من الأطعمة والأدوية ويشهد لهذا الحديث الصحيح " **التلبينة مجمّة لفؤاد المريض تذهب ببعض الحزن**" والتلبينة نوع من الطعام (حساء من دقيق الشعير وعسل).

المرض النفسي ليس وصمة عار وقد يُصيب المؤمن: المؤمن عرضة للابتلاء (لتكفير الذنوب ورفعة الدرجات) وقد يصيبه المرض النفسي كغيره من الناس متى ما وجدت أسباب المرض وليس في ذلك عار عليه ولا عيب وإن توهم كثير من الناس اليوم أن المرض النفسي إنما يعكس عيباً في شخصية المريض وسلوكه أو في تدينه وإيمانه ولا شك أن للإيمان بالله تعالى دوراً كبيراً في قوة النفس ورفع درجة صبرها وتحملها وتخفيف معاناتها.

Supernatural causal attributions : available on youtube
Al-Sughayir Psychiatry Teaching https://www.youtube.com/watch?v=RdD452rxkOw

4- Clinical Interview in Psychiatry

Clinical interview in psychiatry :available on youtube
Al-Sughayir Psychiatry Teaching https://www.youtube.com/watch?v=0nPg8maoBr4

A 20-year-old male seen at the emergency department appeared fully awake but unable to talk, unresponsive to stimuli, and immobile. **How would you assess him?**

A thorough assessment of a psychiatric patient consists of a psychiatric history, mental status examination, physical examination, and certain relevant laboratory and psychological tests. The psychiatric history and mental status examination are usually obtained during the initial psychiatric interview.

Psychiatric Interview

Goals :

1. To establish a relationship with the patient.
2. To obtain information.
3. To assess psychopathology (nature, severity …) of the illness.
4. To provide feedback and formulate a treatment plan.

The clinical interview is very important in psychiatry; it requires practical skills, which cannot be learnt effectively without enough practical training under supervision of experienced interviewers.

Interview Skills

A--Opening phase (5 min):
1- Greet the patient by name and introduce yourself.
2-Put the patient at ease; arrange for a private comfortable setting, and appropriately tell the purpose of the interview.
3- Build good rapport and alliance.

B—Interview Proper (35 min):

1- Be attentive, encouraging, supportive, and observe the patient's nonverbal behavior.

2- Use open-ended questions and facilitative verbal and non-verbal techniques.

3-Avoid excessive note taking, premature reassurance, advice, and diagnosis.

4- Make graceful transitions throughout the interview.

5- Pay attention to the severity and complications of the problem.

6- Utelize time efficiently. 7- Use interview techniques:

C--Closing phase(5min) :
1- Know when to close the interview.
2- Give the patient a chance to ask questions and let him know future plans.

Interview Techniques:

1- Facilitation: providing verbal and nonverbal cues that encourage the patient to keep talking. E.g. saying, Yes, go on, or Uh-huh, leaning forward in the chair, nodding one's head.

2- Clarification: getting details from the patient about what he has already said.

3- Direction/redirection: gracefully using focused questions to maintain the proper track of the interview.

4- Obstruction: providing verbal and nonverbal cues that block a very talkative patient..

5- Reflection: a doctor repeats to a patient, in a supportive manner, something that the patient has said, to let the patient know that the doctor is perceiving what is being said & to assure the doctor that he has correctly understood what the patient said.

6- Summation: periodic summarization of what a patient has said thus far to make sure that the doctor has heard the same information conveyed by the patient.

7- Silence: not every moment must be filled with talk. Silence , allow patients to ventilate emotions (e.g. weeping) and to contemplate.

The Psychiatric History is the chronological story of the patient's life from birth to present (history=his-story). It includes information about who the patient is, his problem and its possible causes and available support. It should be emphasized that:

1. Much more attention needs to be paid to psychological and social aspects.
2. Patient's feelings, thoughts, perception and behavior during the interview are considered part of the mental status examination (*not the psychiatric history*).

The history should be compiled from the patient and other informants (the informant's relationship to the patient should be noted together with the interviewer's impression of the informant's reliability).

The main items of the psychiatric history

1	Identification data
2	Source of referral
3	Chief complaint
4	History of present illness
5	Family history
6	Personal history
7	Medical history
8	Past psychiatric history
9	Personality traits

- **Identification of the Patient:** Name, age, sex, marital status, occupation, education, nationality, residency and religion.

- **Referral Source:** Brief statement of how patient came to the clinic and the expectations of the consultation.

- **Chief Complaint:** Exactly why patient came to the psychiatrist, preferably in the patient's own words (a verbatim statement). Note if the chief complaint differs significantly from the reports of those who accompany patient (other informants).

- **History of Present Illness:** Chronological background of the psychiatric problem: nature, onset, course, severity, duration, effects on patient (social life, job, family…), review of the relevant problems, symptoms not mentioned by patient (e.g. sleep, appetite …), and treatment taken so far (nature and effect).

How to start history taking in psychiatry :

available on youtube: Al-Sughayir Psychiatry Teaching
https://www.youtube.com/watch?v=GbmkUO0sh34

- **Family History:** Family history is important in psychiatry for several reasons:

  1. Events happening currently to a family member may act as a stressor to patient.
  2. Family atmosphere has an effect on the patient's psychological condition.
  3. Some psychiatric disorders run in families and have an important genetic contribution.

* Mother and father: current age (if died mention age and cause of death, and patient's age at that time), relationship with each other and with patient.

* Siblings: list, in order of age, brothers and sisters, education, occupation, marital status, major illnesses and relationship with patient. Ask about mental illnesses in second-degree relatives (grandparents, uncles, aunts, nephews, & nieces).

- **Personal History:** (relatives may be a source of information). Personal history helps in constructing a brief biography of the patient & forms a background against which you understand the presenting complaints and predict future behavior.

  - *Birth*: any known obstetric or prenatal difficulties?.

  -*Early development*: developmental milestones (motor and language), early childhood attitudes and relationships with parents, siblings and others, any emotional or behavioral difficulties.

  - *School*: age at starting and end of school life, approximate academic ability, specific difficulties, attitudes and relationships with teachers and pupils and highest grade attained.

  - *Occupations*: age at starting work, jobs held, reasons for change, satisfaction in work, relationships with workmates and with supervisors.

  - *Puberty:* age at onset, knowledge, attitude and practice of sex.

  - Adolescence: attitude to growing up, to peers, to family and authority figures, and emotional or behavioral problems.

  - *Marital history*: age at marriage, relationships within the marriage, number of children and attitude toward them.

  - *Current social situation*: social environment and social relationships, financial circumstances and social difficulties.

  - Tobacco and substance abuse, and legal (forensic) problems.

- **Medical History:**
  All major illnesses should be listed (nature, extent, dates, treatment, outcome, and patient's reaction and attitude). Women should be asked about menstrual (and, if appropriate, about menopausal) difficulties.

- **Past Psychiatric History:**
  Any previous psychiatric illness (nature, extent, dates, treatment, outcome and patient's reaction and attitude).

- **Personality Traits:** It is important to obtain adequate information (from a variety of sources) about patient's characteristic traits that distinguish him as an individual. Patient's personality usually interacts with his illness and should be separated from episodes of illness. Elicit information about the following:

  - Attitude to self (self-appraisal, performance, satisfaction, past achievements and failures, future..)
  - Major values, moral / religious attitudes, and standards.
  - Prevailing mood and emotions.
  - Reaction to stress (ability to tolerate frustration and disappointments, pattern of coping strategies).
  - Interpersonal relationships (width & depth).
  - Personal interests, habits, hobbies and leisure activities.
  - Others>

How to asses personality traits : available on youtube:
Al-Sughayir Psychiatry Teaching
https://www.youtube.com/watch?v=1y2v1X2TDxQ

MENTAL STATE EXAMINATION (MSE)

It is a cross-sectional, systematic documentation of the quality of mental functioning at the time of interview. It serves as a baseline for future comparison and follow-up of the progress of the patient.

Items of MSE:

1. **Appearance;**
   Note and describe overall appearance, body build, self-care, grooming, facial expressions, and any unusual features (e.g. weight loss)

2- Behavior; Note level of activity, posture, and unusual movements (tics, grimacing, tremor, disinhibited behavior…)

3- Attitude; Note patient's attitude during the interview (interested, bored, cooperative, uncooperative, sarcastic, aggressive …).Patient's attitude is reflected on his non-verbal behavior (eye contact, posture…).

4- Speech; Listen to and describe how patient speaks, noting: (1) amount of speech (2) flow (3) tone (4) coherence (5) continuity (6) speech impairments (stuttering, dysarthria…).

5 - Affect (See below).

6- Perception (See below).

7-Awareness of self and others; When indicated ask about the extreme feelings of "as if detached from self" (depersonalization) & "as if detached from the environment" (derealization).

8-Thoughts & Abstract thinking (See below).

9- Judgment; Test patient's predicted response and behavior in imaginary situations (e.g. what would you do if you smelled smoke in a crowded place?/ if you heard a loud scream coming from your neighbor' house?).

10- Insight (مدى بصيرة المريض بمرضه النفسي): see below

11-Cognitive functions and consciousness

-Consciousness level.

-Attention.

-Concentration.

-Orientation (time, place, person).

-Memory.

(See below).

12- Visuospatial ability; Ask patient either;
1- to copy a figure such as *interlocking pentagons*

0r 2- to draw a clock (*clock Drawing Test):* to indicate a specific time (e.g.10:10).

13-Language and reading

(See below; Mini-mental state Examination).

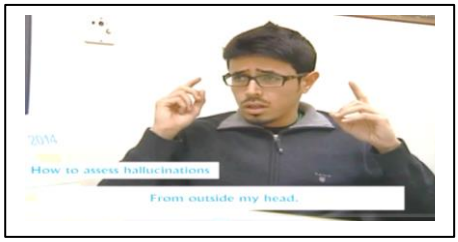
Affect (the patient's *present* emotional state):

- *Subjective affect*: verbal expression of feelings by the patient (some authors call it mood; however , **mood** actually is defined as a pervasive and sustained emotion -over several days-weeks - that colors the person's perception of the world).
- *Objective affect:* examiner's evaluation of patient's observable expression of affect, through nonverbal signs; facial expression, posture & movements.
  Note any abnormality in the nature of affect (e.g. anxiety, depression, elation…), the variability of affect (constricted affect, labile affect..), and whether the affect is appropriate to the thought content, the culture, and the setting of the examination.

Perception: Ask patient about perceptual disturbances (auditory, visual, olfactory, gustatory, tactile and somatic), and ascertain whether the disturbances are **illusions** (misperceptions of real external stimuli), **hallucinations** (perceptions without external stimuli) or **pseudo-hallucinations** (sensory deceptions perceived as emanating from within the mind). Determine the exact nature and complexity of perceptual distortions. Hallucinations of voices discussing patient (third person hallucinations) should be distinguished from voices talking to patient (second person hallucinations). Ask patient about the content of the hallucinations (e.g. what do the voices tell you) his reaction to hallucinations.

How to asses auditory hallucinations : available on youtube: Al-Sughayir Psychiatry Teaching

https://www.youtube.com/watch?v=fYkqTwsg0z0



Thought: Thoughts are usually reflected in the person's speech. Note stream, link, & content of thoughts see abnormalities in thoughts p 19 & 20.

How to asses obsessions : available on youtube: Al-Sughayir Psychiatry Teaching

https://www.youtube.com/watch?v=E6JOXHXGCWk

Abstract vs. Concrete Thinking:

Abstract thinking is the ability to deal with concepts beyond literal meaning and to make appropriate inferences from sentences. It can be tested by: **1. *Similarities & difference****:* e.g. tell me the similarity between "car and train" or the difference between "book and notebook". **2. *Proverbs****:* ask patient to interpret one or two proverbs e.g., "Mr. X has two faces" this means Mr. X has hypocritical double-dealing (abstract thinking). Some patients (psychotics or mentally retarded) may give a concrete answer (e.g., Mr. X has two real combined faces). **Concrete Thinking**: thinking characterized by actual visual image of things, rather than by abstractions; seen in schizophrenic persons and in young children

How to assess abstract thinking : available on youtube: Al-Sughayir Psychiatry Teaching
https://www.youtube.com/watch?v=M5VF7_5mkhY

Examples of Concrete thinking : available on youtube:
Al-Sughayir Psychiatry Teaching
https://www.youtube.com/watch?v=Nld9U3gmIu

Insight: the degree of patient's awareness of his/her mental illness.

1. Do you believe that you have abnormal experiences?
2. Do you believe that your abnormal experiences are symptoms of illness?
3. Do you believe that the illness is psychiatric?
4. Do you believe that psychiatric treatment might benefit you?

Patient's compliance with psychiatric treatment depends on his insight.

How to assess insight : available on youtube: Al-Sughayir Psychiatry Teaching
https://www.youtube.com/watch?v=SDEs5QpLwII

Consciousness and Cognitive Functions:

- **Consciousness:** note patient's general state of awareness (alert, drowsy…)
- **Attention:** (*The ability to focus on the matter in the hand)*. Attention is assessed by asking patient to spell a word backward (e.g. World), to mention 5 words with the same letter, or by the digit span test (see memory below).
- **Concentration:** (*The ability to sustain attention*). Concentration is tested by naming the months of the year in reverse order or by subtracting serial 7s from 100 (serial 7s test): patient is asked to subtract 7 from 100 then to take 7 from the remainder repeatedly until it is less than seven. Psychiatrist assesses whether patient can concentrate on this task. Serial 3s test can be used if patient lacks skill in arithmetic.

- **Orientation to Time, Place and Person**.
  - **Time**: note whether patient identifies the day correctly (e.g. Monday), time of the day (e.g. afternoon) and the approximate date (day, month, and year).
  - **Place**: note whether patient knows where he or she is (city- area-building).
  - **Person**: note whether patient knows other people in the same place (e.g. relatives, hospital staff).

  Disorientation is an important feature of **delirium,** which indicates impaired consciousness. It usually appears in this order: time - place -person, and clears in the reverse order: person - place - time.

- **Memory** (registration >> retention >> recall):

1. ***Immediate memory*** (registration and immediate recall/ frontal lobe function): it is tested by the digit span test; ability to repeat 7 digits (e.g. 3,8,1,4,7,2,9) after an examiner dictates them slowly, first forward, then backward. A normal person can repeat 7 digits correctly, impaired registration should be considered if less than 5 digits could be repeated. This test is also used to assess attention because it requires enough focus. Defect indicates **frontal lobe impairment.**

2. ***Short term recall***: mention **3** names to the patient to remember (e.g. a banana, a clock and a car), and then after 5 minutes ask for recall, during which time you distract patient by doing something else. Defect indicates temporal lobe impairment **(Amnestic Syndrome).**

3. ***Recent memory*****:** ask questions regarding the last few days in patient's life events that you can verify (e.g., what the patient did yesterday morning), defect occurs in **early dementia but may occur in normal elderly and because of medications side effects (e.g., SSRIs, antipsychotics). Recent past memory**: ability to recall events in the past few months, defected in **dementia.**

4. ***Remote memory*** (long-term memory): ask patient to recall personal events (e.g. birth date, wedding date) or well-known public events from some years before, provided that these events (personal or public) are known with certainty to you. Note also the sequence of events. Defect indicates global cortical impairment; **advanced dementia.**

How to assess cognitive functions : available on youtube: Al-Sughayir Psychiatry Teaching
https://www.youtube.com/watch?v=DxsoVIderrM

Mini-Mental State Examination (MMSE);

It is a brief instrument designed to assess higher mental functions. It is widely used as a screening test that can be applied during a patient's clinical examination, and as a test to track the changes in a patient's cognitive state. It assesses orientation, memory, calculations, writing and reading capacity, language, and visuo-spatial ability.

Function / test	Score
1. Orientation	
What is the day, time of the day & date (day, month, and year)?	5 points
Where are we (building/hospital, area, city, country)?	5 points
2. Registration; Name three objects (e.g. a tree, a pen, and a car) repeat them (after the interviewer).	3 points
3. Attention and calculation	
Spell "world" backward (attention).	5 points
Tell the months of the year backward (concentration), or serial 7s test.	
4. Retention & Recall; Name the three objects mentioned above 5 minutes later.	3 points
5. Language (aphasias)	
Ask patient to name two objects (e.g. a pen and a watch)- for *nominal aphasia*-.	2 points
Ask patient to repeat after you certain words Say, "No ifs, ands, or buts." -for *expressive aphasia*-.	1 point
Ask patient to carry out a three-step verbal commands e.g., take a pencil in your right hand, put in your left hand, and then put it on the floor-for *receptive aphasia* (auditory functions)-.	3 points
6. Reading comprehension; ask patient to read a sentence with written command	
Close your eyes.	1 point
Write a sentence.	1 point
Copy a design.	1 point
TOTAL	**30 points**

A score of less than 24 points suggests impairment, and a score of less than 20 indicates a definite organic mental impairment (most common are delirium & dementia).It is advised to be done by more than one interviewer and repeated over a period of time.

5- Symptoms & Signs in Psychiatry (Psychopathology)

Psychiatric symptoms and signs are common in patients of all kinds; therefore, medical students require sound knowledge of these symptoms and signs. In psychiatric clinical practice, diagnosis is not made on a single symptom or sign, but on the pattern of several clinical features; symptoms, signs, course, causes… .

For simplification, symptoms and signs in psychiatry can be grouped into the following categories:

Abnormalities of behavior and movements

1. **Psychomotor Retardation:** slowed motor activities and mental functions (e.g. delayed answers), seen in *depressed patients.*
2. **Stupor:** a state in which a person, although is fully awake with open eyes, does not react to the surroundings: mute, immobile and unresponsive. It can be due to organic or functional psychiatric disorders. **Catatonic Stupor:** stupor with rigid muscles and posturing seen mainly in schizophrenia ;d

stupor : available on youtube: Al-Sughayir Psychiatry Teaching https://www.youtube.com/watch?v=_Sn1i9obIEo

3. **Agitation:** restlessness with inner tension. Patient is **not** fully aware of restlessness. It can be due to many psychiatric disorders: mania, depression, schizophrenia, substance abuse ,delirium …e t c.

4. **Akathisia:** inability to keep sitting still, due to a compelling subjective feeling of restlessness. Patient is fully aware of restlessness. It is due to antidopaminergic drugs. When akathisia is mistaken for agitation, patient may be given unnecessary doses of antidopaminergic drugs that exacerbates akathisia in a v

youtube.com/watch?v=svoDpICEnsg

5. **Acute Dystonia:** very severe painful muscle spasms (neck, back, eyes, and, tongue). It is due to a *recent* use of anti-dopaminergics, which induces a hypercholinergic state in the basal ganglia. See S/E of antipsychotics

Acute dystonia : available on youtube: Al-Sughayir Psychiatry Teaching https://www.youtube.com/watch?v=YNWFssG50bM

6. **Tardive Dyskinesia:** restless movements of group of muscles, mainly in the orofacial muscles.

Hand muscles may be involved. It is due to *a prolonged* use of anti-dopaminergics.

youtube.com/watch?v=FUr8ltXh1Pc > No. 6 / 9 / 10

7. **Waxy Flexibility (catalepsy):** patient's limbs may be moved like wax, holding position for long period of time before returning to previous position, seen mainly in *schizophrenia ;catatonic type.*

Waxy Flexibility : available on youtube: Al-Sughayir Psychiatry Teaching https://www.youtube.com/watch?v=1Ty5rNh76qI

8. **Stereotypies:** purposeless repetitive involuntary movements. E.g. foot tapping, thigh rocking, seen in normal people but when severe they indicate a psychotic disorder .
9. **Mannerism:** odd goal-directed movements. E.g. repeated hand movement resembling a military salute. They indicate a psychotic disorder .

Abnormalities of mood and emotion:

1. **Anxiety:** feeling of apprehension accompanied by autonomic symptoms (such as muscles tension, perspiration and tachycardia), caused by anticipation of danger.

Free-floating anxiety: diffuse, unfocused anxiety, not attached to a specific danger.

2. **Fear:** anxiety caused by realistic consciously recognized danger.
3. **Panic:** acute, self-limiting, episodic intense attack of anxiety associated with overwhelming dread and autonomic symptoms.
4. **Phobia:** irrational exaggerated fear and avoidance of a specific object, situation or activity.
5. **Dysphoria:** mixture feelings of sadness and apprehension.
6. **Depressed mood:** feeling of sadness, pessimism and a sense of loneliness.
7. **Anhedonia:** lack of pleasure in acts that are normally pleasurable.
8. **Euphoria:** intense elation with feeling of grandeur seen in *patients with mania or substance abuse*.
9. **Constricted Affect:** significant reduction in the normal emotional responses.
10. **Flat Affect:** absence of emotional expression.
11. **Apathy:** lack of emotion, interest or concern, associated with detachment.
12. **Inappropriate Affect:** disharmony between emotions and the idea, thought, or speech, accompanying it seen in *chronic schizophrenia*.

Abnrmalities of speech:

1. **Poverty of Speech:** restricted amount of speech; seen in depression and schizophrenia.
2. **Pressure of Speech:** rapid, uninterrupted speech; seen in *patients with mania or stimulant abuse.*
3. **Stuttering (Stammering):** frequent repetition syllable, leading to markedly impaired speech fluency.
4. **Clang Associations (Rhyming):** association of word similar in sound but not in meaning (e.g. deep, keep, sleep) seen in *patients with mania or substance abuse.* (السجع)
5. **Punning:** playing upon words, by using a word of more than one meaning (e.g. ant, aunt). seen in *patients with mania or substance abuse*. (التورية)
6. **Word Salad:** incoherent mixture of words, seen in *chronic schizophrenia*.
7. **Circumstantialities:** over inclusion of unnecessary details delaying reaching the desired goal, seen *in obsessional personality.*
8. **Echolalia:** imitation of words or phrases made by others, seen in *some schizophrenic patients, mentally retarded and some organic mental disorders.*

Abnormalities of thoughts & thinking

	Abnormality in Thought	Type	Definition & DDx
A	Stream	**Poverty of thoughts**	Slow, few, unvaried thoughts associated with poverty of speech, seen in *chronic schizophrenia and depression.*
		Pressure of thoughts	Rapid abundant varying thoughts associated with pressure of speech and flight of ideas, seen in *mania and stimulant abuse*.
		Thought block Al-Sughayir Psychiatry Teaching youtube.com/watch?v=RLKJZt83duc	Sudden cessation of thought flow with complete emptying of the mind, not caused by an external influence, seen in *schizophrenia.*
B	Link	**Loose association** Al-Sughayir Psychiatry Teaching youtube.com/watch?v=J9iY8E2TWV4	Lack of logic connection between thoughts, seen in *chronic schizophrenia.*
		Flight of ideas Al-Sughayir Psychiatry Teaching youtube.com/watch?v=43E-YCJv98Q	Successive rapidly shifting incomplete ideas but with an understandable link (usually associated with pressure of speech and thought) seen in *mania and stimulant intoxication.*
		Thought perseveration	Repeating the same sequence of thoughts persistently and inappropriately, seen in *organic brain pathology (e.g. dementia).*
C	Content Beliefs	**Overvalued ideas** Al-Sughayir Psychiatry Teaching youtube.com/watch?v=FDL4ljeH5uo	Strongly held false but shakable ideas (e.g., vitiligo is a contagious illness / patient's conviction that he has a hidden serious physical disease).
		Obsessions  Al-Sughayir Psychiatry Teaching youtube.com/watch?v=ZpjJSoQFdyM	Undesirable repetitive ideas insistently entering person's mind against his will despite resistance, seen in *obsessive-compulsive disorder (OCD).* *Obsessional forms*: Thoughts. Images. Urges. Feelings. *Obsessional Contents*: *Dirt/Contamination. Religious acts/beliefs. Doubts/Checking. As if committing offences.* Obsessions (also called ruminations) are frequently, but not always, followed by compelling actions (called compulsions or rituals).
		Delusions  Al-Sughayir Psychiatry Teaching youtube.com/watch?v=ljH_JTlBR8E	False beliefs characterized by being: **1**.fixed(unshakable). **2**. not arrived at through logic thinking. **3**.not amenable to reasoning. **4**. out of keeping with the person's cultural background. Seen in many ***psychotic disorders*;** brief psychosis, schizophreniform disorder, delusional disorders, schizophrenia, mood disorders, psychosis induced by medications or substance abuse, delirium, and dementia.

Common Types of Delusions (Delusional Contents):

1. **Persecutory delusion**: Delusion of being persecuted (cheated, mistreated, harassed, followed for harm etc.). Persecutory delusion is sometimes called **paranoid delusion** , however, paranoid delusion means not only being persecuted but being persecuted because of having special

youtube.com/watch?v=xIrA6iCke

2. **Grandiose delusion:** Delusion of exaggerated self-importance, power or identity.
3. **Delusion of jealousy:** (infidelity delusion).Delusion that a loved person (wife/husband) is unfaithful.
4. **Erotomanic delusion:** Delusion that someone, (usually inaccessible, high social class person) is deeply in love with the patient.
5. **Nihilistic delusion:** Delusion of nonexistence of body organ, belongings, self, others or the world. Seen in some patients suffering from major depression with psychotic features.

youtube.com/watch?v=zX9OTDzyNd

6. **Delusion of self - accusation:** Delusion that a patient has done something sinful, with excessive pathological feeling of remorse and guilt seen in severe depression.
7. **Delusion of reference:** Delusion that some events and others' behavior refer to oneself in particular. It can be seen in any type of psychosis. Note that : in some manic patients they feel happy with the content of the delusion, perceiving it as a sign of self-importance.
8. **Delusion of influence** (delusion of control= passivity phenomena):Delusion that person's actions, feelings, or thoughts are controlled by outside forces, *seen in schizophrenia.*

Thought alienation (thought control) is a kind of delusion of control concerning patient's thoughts. It can take different forms:

Thought Insertion	Thought Withdrawal / Broadcasting	Thought (mind) Reading
Thoughts being **put into** his mind against his will by an external force (other people, a certain agency). 	Thoughts being **taken out** of his mind against his will (withdrawal) +/- being **broadcast** over the air, radio, TV, newspapers or some other unusual way. 	Somebody (or others) can know exactly (read) his hidden thoughts from a distance. 

How to asses delusions : available on youtube: Al-Sughayir Psychiatry Teaching
https://www.youtube.com/watch?v=70VfdKU3gOE

* **Delusions can be either :**

Mood-Congruent Delusion	Mood-Incongruent Delusions
Delusional content has association to mood: . in depressed mood: delusion of self - accusation. . in elevated mood: grandiose delusion.	Delusional content has no association to mood, e.g. patient with elevated mood has delusion of thought insertion.

* **Delusions can be either:**

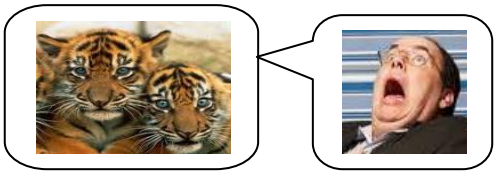
Systematized; united by a single event or theme e.g. delusion of jealousy.	**Bizarre** ; totally odd and strange delusional belief, e.g. delusion that stars control patient's acts.

Howeve, in DSM-5 bizarre & non-bizarre distinction has been eliminated.

Abnormalities of perception:

- **Illusions:**

  Misperceptions of real external sensory stimuli: E.g., shadows/wallpapers may be misperceived as frightening figures. Illusions are non-specific signs, seen in many psychiatric cases: delirium, substance abuse and others. They may occur in normal people (dim light/exhaustion).



- **Pseudo-Hallucinations:**

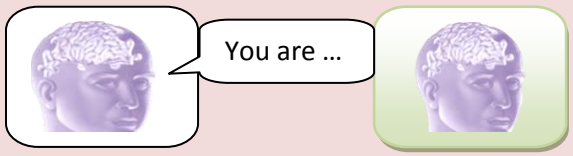
  Normal sensory deceptions perceived as emanating from within the mind (person has insight). E.g. After listening to an audio tape for long time, the same material can be re-experienced even with no actual source.

- **Hallucinations**:(auditory,visual,tactile,olfactory,gustatory,somatic)

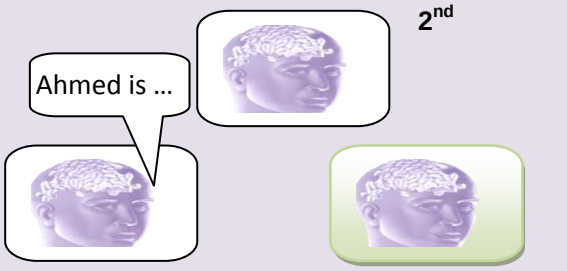
  Abnormal perception in the absence of real external stimuli; experienced as true perception coming from the external world (not within the mind) e.g. hearing a voice of someone when actually nobody is speaking within the hearing distance. Patient has no insight. They indicate major mental illness (psychosis).

- **Auditory hallucinations** (voice, sound, noise).

Second-person hallucinations: voices of a person speaking to the patient addressing him/her directly. E.g., "you are bad". These are seen in many disorders: schizophrenia (usually derogatory voices calling bad names /giving orders), severe depression with psychotic features (usually self-depreciating associated with guilt feeling), mania (usually self-appreciating associated with acceptance).



Third-person hallucinations: voices of a person talking to another person about the patient. E.g. "look! he is bad" , *(seen in schizophrenia).*

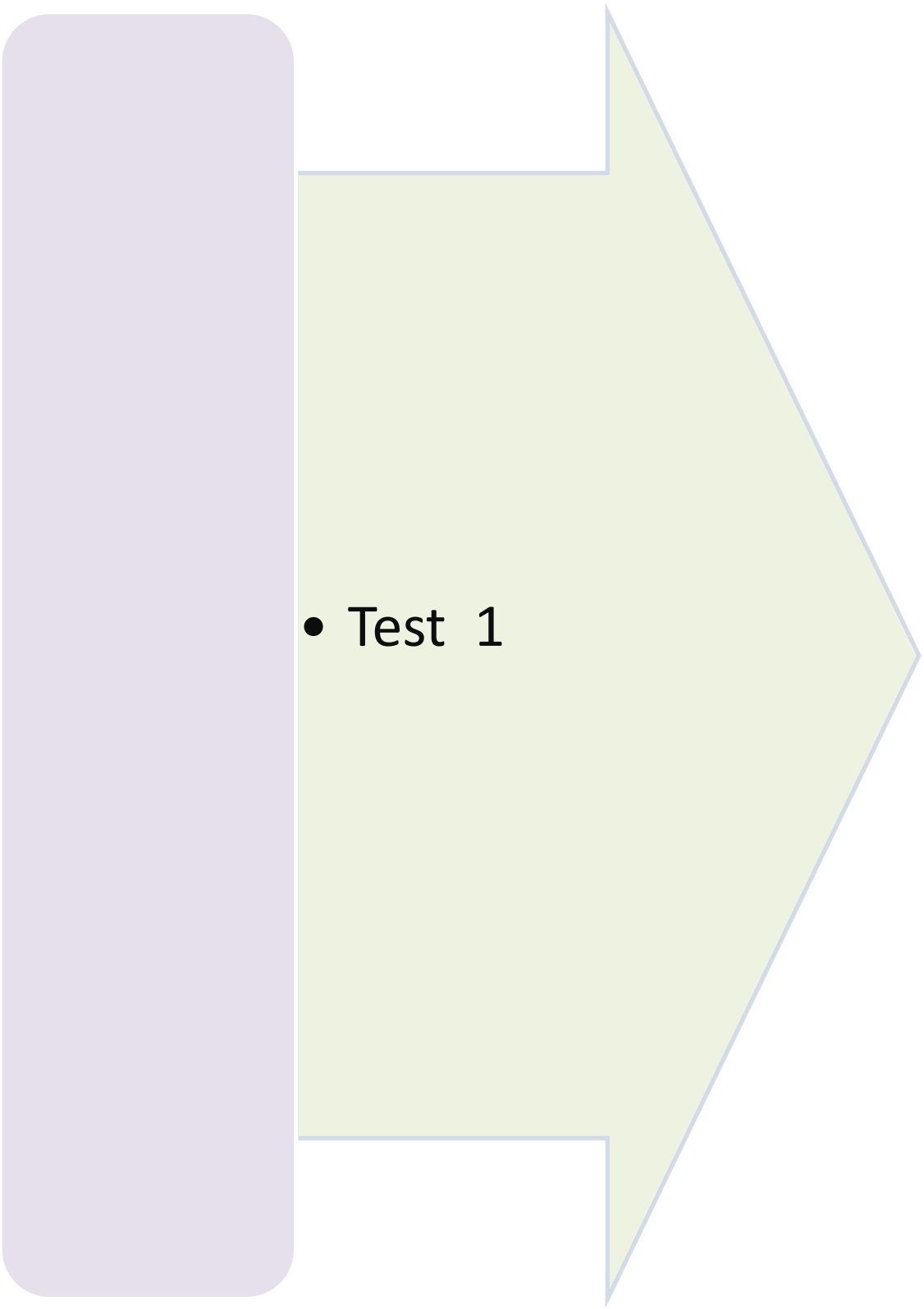


Examples of auditory hallucinations : available on youtube: Al-Sughayir Psychiatry Teaching
https://www.youtube.com/watch?v=ukykXIkVuYA

+ youtube.com/watch?v=0tn8xLQY53U

Thought echo: hearing one's own thoughts spoken aloud *(seen in schizophrenia).*

Visual hallucinations (images/sights): indicate an organic mental disorder (e.g. delirium, intoxication with drugs, uremia) or schizophrenia.


• Test 1

1- While interviewing a 21-year-old man, the psychiatrist asked the patient *"how do you usually spend your leisure time"*. What was the psychiatrist assessing?
   a. Thinking process.
   b. Personality traits.
   c. Judgment.
   d. Personal history.

2- A 42-year-old man seen at the out-patient psychiatry clinic. He has a disturbance in the logical connection of ideas. What mental function is impaired in this patient?
   a. Memory.
   b. Thinking.
   c. Perception.
   d. Insight.

3- During the interview of a 34-year-old woman, the psychiatrist asked her to express her current feelings during the interview. What was the psychiatrist assessing?
   a. Anxiety level.
   b. Self-awareness.
   c. Subjective affect.
   d. Objective mood.

4- While interviewing a 30-year-old man, the psychiatrist asked the patient *"what would you do if you smelled smoke in the kitchen"*. What is the doctor trying to evaluate?
   a. Judgment.
   b. Insight.
   c. Social attitude.
   d. Concrete thinking.

5- While assessing a 25-year-old man, the psychiatrist asked his patient *"do you think that you are mentally ill?"* What was the psychiatrist assessing?
   a. Intelligence.
   b. Insight.
   c. Perception.
   d. Judgment.

6- While interviewing a 74 -year-old woman she could not identify the place correctly, although she was fully conscious. Which mental function is impaired in this patient?
   a. Memory.
   b. Registration.
   c. Attention.
   d. Orientation.

7- While assessing a 26-year-old man, you ask him to tell you the difference between *"book and notebook"*. Which mental function you were assessing?
   a. Cognitive functions.
   b. Visuospatial ability.
   c. Judgment.
   d. Abstract thinking.

8- A psychiatric nurse phoned the psychiatrist telling him about one of the patients in the psychiatric ward. She said: *"the patient looks drowsy and could not identify people around him"*. Which mental function does the nurse describe?
   a. Cognition.
   b. Perception.
   c. Behavior.
   d. Illusions.

9- While evaluating a 23-year-old patient the psychiatrist requested the patient to repeat 7 digits after the psychiatrist dictates them slowly. What was the psychiatrist assessing?

a. Perception.
b. Short term recall.
c. Attention.
d. Concentration.

10- While assessing an 81-year-old man the psychiatrist asked the patient to tell what time is it. What was the psychiatrist looking for?

a. A psychotic disorder.
b. Impaired concentration.
c. Impaired judgment.
d. A neurocognitive deficit.

11- A 53-year-old man seen at the emergency department has slowed body movements and delayed answers. What is this psychopathology?

a. Psychomotor akathisia.
b. Psychomotor retardation.
c. Psychomotor dyskinesia.
d. Psychomotor dystonia.

12- A 46-year-old man seen at the emergency department showed restlessness with inner tension. The patient is not aware of his restlessness. What is this psychopathology?

a. Agitation.
b. Dyskinesia.
c. Akathisia.
d. Acute dystonia.

13- A 32-year-old psychiatric patient is unable to keep sitting still and is fully aware of his restlessness. What is this psychopathology?

a. Agitation.
b. Mannerism.
c. Akathisia.
d. Dystonia.

14- A 28-year-old schizophrenic male patient on medications. He was seen at the emergency department because of painful neck spasm and tongue protrusion for 2 hours. What is this psychopathology?

a. Stupor.
b. Dyskinesia.
c. Parkinsonism.
d. Acute dystonia.

15- A 53-year-old woman on antipsychotic medications seen at out-patient psychiatry clinic. She has continuous slow movements of her lips and tongue. What is this psychopathology?

a. Akathisia.
b. Parkinsonism.
c. Tardive Dyskinesia.
d. Acute Dystonia.

16- A 25-year-old man seen at out-patient psychiatry clinic. He has persistent and recurrent bad mental images that he cannot eliminate. What is this psychopathology?
   a. Illusions.
   b. Obsessions.
   c. Delusions.
   d. Hallucinations.

17- A 25-year-old man seen at out-patient psychiatry clinic said: *"Neighbors are able to make me do what they want, even at a distance with no direct contact with me"*. What is the most likely psychopathology in this case?
   a. Persecutory delusion.
   b. Delusion of reference.
   c. Hallucinations.
   d. Delusion of control.

18- While evaluating a 26-year-old woman, she indicated that she feels as if she heard voices of her relatives inside her head without their presence. What is this psychopathology?
   a. Pseudo-hallucinations.
   b. Derealization.
   c. Illusions.
   d. Hallucinations.

19- A 26-year-old male seen at out-patient psychiatry clinic. He misperceived wallpapers as frightening figures. What is this psychopathology?
   a. Hallucinations.
   b. Delusions.
   c. Illusions.
   d. Obsessions.

20- A 45-year-old male seen at the out-patient psychiatry clinic. He has an abrupt interruption in train of thinking before a thought is finished. What is this psychopathology?
   a. Hallucinations.
   b. Flight of ideas.
   c. Loose association.
   d. Thought block.

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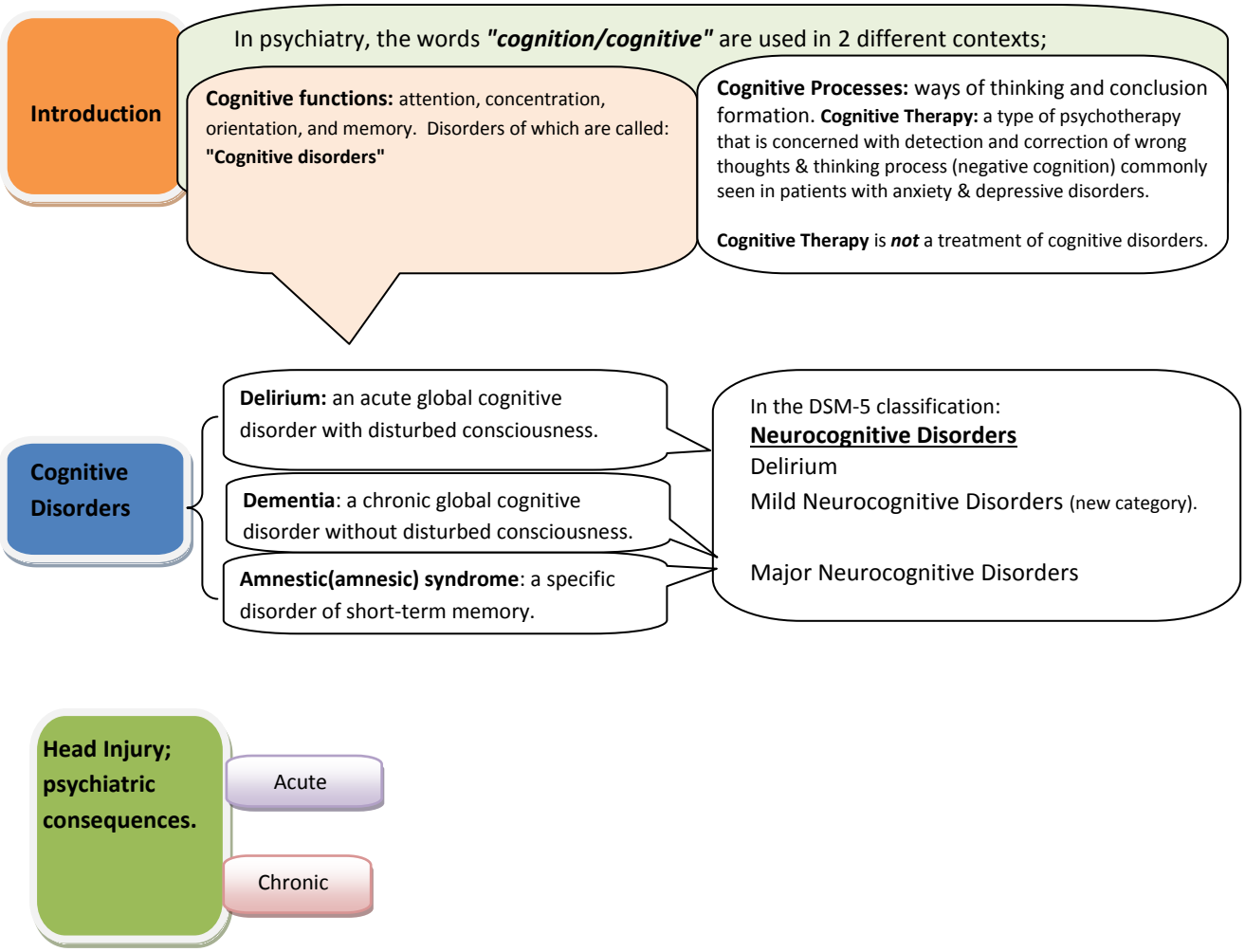
Answers

1	2	3	4	5	6	7	8	9	10
B	B	C	A	B	D	D	A	C	D
11	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
B	A	C	D	C	B	D	A	C	D

2

Neuro-Cognitive Disorders


Introduction
In psychiatry, the words "cognition/cognitive" are used in 2 different contexts;
Cognitive functions: attention, concentration, orientation, and memory. Disorders of which are called: "Cognitive disorders"
Cognitive Processes: ways of thinking and conclusion formation. Cognitive Therapy: a type of psychotherapy that is concerned with detection and correction of wrong thoughts & thinking process (negative cognition) commonly seen in patients with anxiety & depressive disorders.
Cognitive Therapy is not a treatment of cognitive disorders.
Cognitive Disorders
Delirium: an acute global cognitive disorder with disturbed consciousness.
Dementia: a chronic global cognitive disorder without disturbed consciousness.
Amnestic(amnesic) syndrome: a specific disorder of short-term memory.
In the DSM-5 classification:
Neurocognitive Disorders
Delirium
Mild Neurocognitive Disorders (new category).
Major Neurocognitive Disorders
Head Injury; psychiatric consequences.
Acute
Chronic

Delirium (الهذيان - الهُذاء)

Mr. Hassan is a 75-year-old man was brought to the emergency department by his sons because of 3 days history of fluctuating consciousness, disorientation, & disturbed perception, speech, thinking, and behavior. Recently he developed fever and urinary incontinence.

Definition: Acute transient reversible global cognitive impairment with impaired consciousness due to a medical problem.

Epidemiology: It may occur in anyone at any age but more in elderly and children. The highest rate of delirium is found in post-cardiotomy patients > 80 %. In ICU 30%, post burn patients 20%, & among hospitalized patients about 10 %. **Delirium is under-diagnosed especially when patient is hypoactive, somnolent, or with minimal features. Such cases may be misdiagnosed as depression.**

Diagnostic criteria (simplified):

A. Consciousness is disturbed (i.e., awareness of the environment is impaired but patient is not in coma).
B. Cognitive functions are impaired + / - perceptual disturbances (illusions or hallucinations).
C. Acute onset with fluctuating symptoms (within hours during the day) & transient course (few days).
D. Caused by a physical problem (e.g. hypoxia, hypoglycemia, infection…others see causes).

Mnemonic

Acute Co Co Cause

youtube.com/watch?v=lJH1Ao

Clinical Assessment: see p 13.

Dr., is delirium a ***serious*** condition & why?

Yes, Abdulrahman. It is a very serious medical & psychiatric condition due to high risks of:
1-Death (b/o the serious nature of the associated medical conditions) 2- Suicide 3- Violence 4- Impaired judgment & 5- Psychosis.

Dr., why does a delirious patient become **suicidal** or aggressive?!

Due to the severe disturbance in the patient's perception, mood, thinking, and behavior. Patient may act on hallucinations, illusions or delusional thoughts as if they were genuine dangers (e.g., blood extraction by a nurse might be perceived as an attack). However, the clinical presentation differs from patient to patient. Some patients may be excessively somnolent, and some may fluctuate from one state to the other, usually restless at night and sleepy during the day with lucid intervals.

Mr. Hassan showed difficulty focusing, sustaining, and shifting attention. He was not cooperative during physical & mental status examinations. He was agitated, shouting, and tried to pull out his intravenous lines.

Is there **a specific diagnostic investigation** for delirium?

No, it is a bedside clinical diagnosis. Thus, good clinical skills are essential:

A. History; acute onset + medical disease + consciousness & cognitive disturbances .

B. MSE; proper assessment of mental functions.

Abdulrahman, what are the common causes of delirium?

Etiology

- ***Infections*: e.g. UTI, chest infection, encephalitis, septicemia.
- ***Medications*** *(e.g. anticholinergics).*
- ***Metabolic & electrolyte*** **disturbances**.
- ***Endocrinopathies*** (e.g. hypoglycemia).
- ***Hypoxia*; cardiac or respiratory failure.
- ***Renal failure*; uremia.
- ***Hepatic failure***; encephalopathy.
- ***CNS*: seizure / head trauma/substance abuse (intoxication or withdrawal).

Regardless of the cause, the presentation is similar.

Inf me me ends hypoxia Renal Hepatic CNS

Age ≥ 70 years , Fever
DM - HTN- COPD-
Organ failure.

Past history of delirium.

Current history of dementia.

Substance abuse.

Multiple medications.

Investigations :

Blood: CBC + differential WBCs. Blood chemistries (including electrolytes, renal and hepatic indexes, and glucose). Blood culture. Blood drug screen. Thyroid function tests. CPK

Urine: Urinalysis. Culture & sensitivity. Urine drug screen.

Additional tests when indicated:
Chest XR./ ECG./ EEG. /
Brain scan (CT or MRI).
Lumbar puncture and CSF examination**.**

Mr. Hassan's history revealed memory deterioration and time disorientation over the past 5 years.

Differential Diagnosis (DDx):

1. ***Dementia*** :

	Delirium	Dementia
Onset	Acute	Gradual /insidious (except for vascular dementia caused by stroke).
Consciousness	Impaired	Intact
Course	Fluctuates /transient /clears within 7-10 days	Chronic /deteriorating

Occasionally, delirium occurs in a patient with dementia, a condition known as ***beclouded dementia***. However, a dual diagnosis (i.e. dementia and delirium) can only be made when there is a definite history of preexisting dementia (see dementia later in this chapter).

2. ***Substance abuse***; alcohol, inhalants, sedatives, and opioids. (see later).
3. ***Amnestic syndrome*** (see later).
4. ***Acute functional psychosis*** (brief psychosis, mania, and exacerbation of schizophrenia or schizoaffective disorder): patients usually experience no change in their level of consciousness or in their orientation. The hallucinations and delusions are more constant and better organized than those of patients with delirium.
5. ***Severe Depression*** : patients with hypoactive symptoms of delirium may appear somewhat similar to severely depressed patients, but they can be distinguished on the basis of an EEG (normal in depression). When a delirious patient is treated with tricyclic antidepressants (TCAs), his/her cognitive functions deteriorate further because of the anticholinergic effect of (TCAs).

Treatment: (It should be in a well-equipped ***medical*** rather than a psychiatric ward).

1. The cause should be searched for and treated properly, e.g. ensure electrolyte balances, enough oxygen, nutrition, and hydration. The referring physician should do this task.
2. Control mental and physical disturbance with antipsychotics e.g. haloperidol (1mg oral, IV, or IM) or Olanzapine (5mg oral or IM) 2- 3 times/day. Intramuscular administration may be preferable for some patients with delirium who are poorly compliant with oral medications or who are too sedated to safely swallow tablets.
3. Limit benzodiazepines (or give with extreme caution) because their effects may increase disorientation, drowsiness and ataxia with possible falls, head trauma and fractures.
4. Keep the patient in a quiet, well lit-room; avoid over and under stimulation. Frequently reorient, reassure and explain procedures clearly to the patient.

Types of delirium (Meagher 1996):

Hyperactive (30%)	**Hypoactive** (24%)	**Mixed** (46%)
The most clear and least controversial.	The most difficult type to identify. A large percentage of these patients are inappropriately diagnosed and treated as depressed. Classically, these patients present with symptoms that are commonly associated with depression (lethargy, apathy, decreased level of alertness, psychomotor retardation, and decreased speech production)	The classic waxing and waning pattern. Commonly seen in surgical patients (agitated at times, with alternating episodes of hypoactivity).

Course and Prognosis: The course is usually short (7-10 days). However, the symptoms of delirium usually persist as long as the causally relevant factors are present. The longer the patient has been delirious and the older the patient, the longer the delirium takes to resolve. Delirium may spontaneously clear or progress rapidly into dementia or into death; because of the serious nature of the associated medical conditions. When treated, it usually resolves rapidly. However, some residual deficit may persist. It is sometimes followed by depression.

Neurocognitive Disorders (DSM-5)

1.Delirium : The criteria for delirium have been updated and clarified on the basis of currently available evidence.

2.Mild Neurocognitive Disorder : it describes a less severe & less disabling level of cognitive impairment that requires compensatory strategies and accommodations to help maintain independence and perform activities of daily living. To be diagnosed with this disorder, there must be changes that impact cognitive functioning. These symptoms are usually observed by the individual, a close relative, or other knowledgeable informant, such as a friend, colleague, or clinician, or they are detected through objective testing. This diagnostic category provides an opportunity for early detection and treatment of cognitive decline before patients' deficits become more pronounced and progress to ***major neurocognitive disorder*** (dementia) or other debilitating conditions. Its inclusion in the manual will help clinicians develop effective treatment plans as well as encourage researchers to evaluate diagnostic criteria and potential therapies. Recent studies suggest that identifying mild neurocognitive disorder as early as possible may allow interventions to be more effective. Early intervention efforts may enable the use of treatments that are not effective at more severe levels of impairment and may prevent or slow progression.

3.Major Neurocognitive Disorder: it includes dementia and amnestic disorder. However, the term *dementia* can be used in the etiological subtypes. An updated listing of neurocognitive domains is also provided in DSM-5, as these are necessary for establishing the presence of NCD, distinguishing between the major and mild levels of impairment, and differentiating among etiological subtypes.

(الخرف) Dementia

Aminah is a 73-year-old diabetic woman noticed to show a gradual loss of social skills, a decreased range of interest, multiple somatic complaints, and memory impairment.

Definition: a progressive impairment of cognitive functions occurring in clear consciousness.

Epidemiology: The prevalence of moderate to severe dementia in the general population is 5 % > 65 years, 20- 40 % in > 85 years of age. In outpatient general medical practices, it is 15 - 20 %, and 50 % in chronic care facilities.

Affective symptoms, including depression and anxiety, are seen in 40 to 50% of demented patients. Delusions and hallucinations occur in 30%.

Features: The essential feature is a loss of intellectual abilities of sufficient severity to interfere with social or occupational functioning or both.

In early stages	In late stages
Cognitive impairment may not be apparent. **Features include** : - A gradual loss of social and intellectual skills (first noticed in work setting where high performance is required). - Mild memory impairment. - Subtle changes in personality. - Changes in affect (irritability, anger, …). - Multiple somatic complaints and vague psychiatric symptoms.	*Cognitive disturbances emerge:* -Increasing memory impairment (esp. recent memory). -Attention impairment. Disorientation: particularly to time, and when severe to place and person. -Language: vague and imprecise speech with inappropriate repetition of the same thoughts (perseveration). -Impaired judgment. -Potential aggression (verbal & physical). -Psychotic features: hallucinations and delusions. - Emotional lability. - Catastrophic reaction marked by agitation secondary to the subjective awareness of intellectual deficits under stressful circumstances. **Sundowner Syndrome** Drowsiness, confusion, ataxia, and accidental falls. It occurs in demented patients when external stimuli, such as light and interpersonal orienting cues, are diminished.

Clinical Assessment: see p 13.

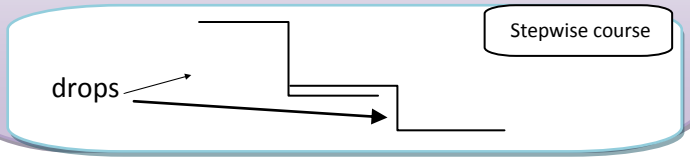
youtube.com/watch?v=uAlkCMfTASQ

youtube.com/watch?v=_hRBPrfDQVI

Causes of dementia:

1. Alzheimer's disease (50 to 60% of dementias): Progressive ***downhill*** deterioration of intellectual functioning due to a degenerative process affecting the whole cortex, especially cholinergic neurons.

2. Vascular (multi-infarct) dementia (10 to 25% of dementias): Declining ***stepwise*** deterioration of intellectual functioning due to multiple infarcts of varying sizes or arteriosclerosis in the main intracranial vessels. It usually occurs in patients with hypertension or diabetes. Stepwise course (multiple drops) .
Onset: after a stroke, its sudden onset may resemble delirium. Some cases follow a stationary course.



3. Medical conditions (reversible conditions; 15% of dementias) e.g., metabolic causes: vitamin deficiency (e.g. B12, folic acid), hypothyroidism, TB affecting CNS.

4. Substance- induced dementia: e.g. alcoholic dementia.

5. Parkinson's Disease: it is a disease of the basal ganglia, commonly associated with dementia and depression. An estimated 20 -30 % of patients with Parkinson's disease have dementia, and an additional 30 - 40 % has measurable impairment in cognitive abilities.

5. Others :

- ***Lewy Body Disease****:* a dementia clinically similar to Alzheimer's disease and often characterized by hallucinations, parkinsonian features, and extrapyramidal signs. Lewy inclusion bodies are found in the cerebral cortex. The exact incidence is unknown. These patients show marked adverse effects when given antipsychotic medications.
- ***Normal pressure hydrocephalus****:* Progressive memory impairment, slowness and marked unsteady gait (+ urine incontinence in late stages).
- ***Huntington's chorea****:* global intellectual impairment with extra pyramidal features.
- *Creutz Feldt–Jakob's disease.* • *AIDS dementia .* • *Pick's disease* (dementia of frontal lobe type).
- *Binswanger's Disease* (also known as subcortical arteriosclerotic encephalopathy): is characterized by the presence of many small infarctions of the white matter that spare the cortical regions .

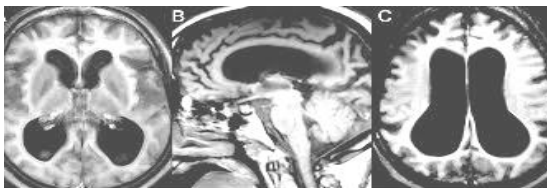
Dementias are classified as **cortical** and **subcortical** depending on the site of the cerebral lesion. A subcortical dementia occurs in vascular dementia, Parkinson's disease, normal pressure hydrocephalus, Huntington's disease and Wilson's disease. The subcortical dementias are associated with psychomotor retardation, movement disorders, gait incoordination, apathy, and akinetic mutism, which can be confused with catatonia**.**

Course and Prognosis (depend on the cause). Alzheimer's dementia shows a progressive slow deterioration. The patient may become incontinent of urine and / or stool. Vascular dementia shows stepwise deterioration or stationary course after a massive stroke that is then followed by a good control of the risk factors e.g., HTN, DM …etc.

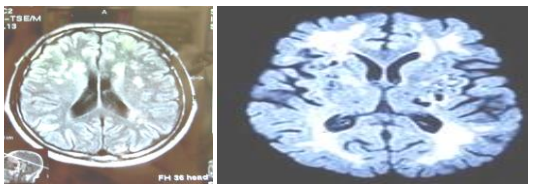
Investigations

Essential workup to confirm dx / exclude treatable causes:
B12 and folate blood levels. Thyroid Function Tests (TSH,T3, T4). Brain CT or MRI.

Alzheimer's dementia :
(cortical atrophy+ wide sulci, gyri, & ventricles).



Vascular dementia: multiple infarcts.



DDx

***1-Normal aging*:** Age-related cognitive decline (the course is not progressively deteriorating), no loss of social or occupational functioning.

2. Pseudo-dementia **(Depression in the elderly)**: cognitive disturbance is relatively of rapid onset and proceeded by depressive features. Patient is aware of problems & often answers, "I don't know" compared to confabulation in demented patient. The differentiation is sometimes difficult as demented patients may also become depressed as they begin to comprehend their progressive cognitive impairment. EEG and CT scan are normal in pseudo-dementia. See major depressive episode (MDE) later.

3. *Delirium**:*** the onset is rapid and consciousness is impaired. See p 28-30.

Treatment:

1. **Supportive measures:**

a. Provide good meals & hygiene. b. Encourage family's involvement. c. Support the caregiver.
d. Keep in familiar settings if possible to avoid accidents, wandering away,…etc.

2. **Specific measures:**

a. Identify and correct any treatable or controllable condition e.g. : hypothyroidism, vitamin B12 deficiency, hypertension, diabetes.

b. Symptomatic treatment:

Agitation, aggression: small doses of major tranquilizers (e.g. Olanzapine 5mg).

Insomnia: a small dose of major tranquilizers (e.g. olanzapine 5mg) or benzodiazepine (e.g. lorazepam 1mg).

Depression: small doses of antidepressant (e.g. citalopram 10 – 20 mg).

Be aware of possible mental side effects of such medications (over-sedation, risk of falling down - head trauma & fractures- and central anticholinergic activity that may cause delirium).

C. Cognitive-enhancing medications (mainly for Alzheimer's dementia).

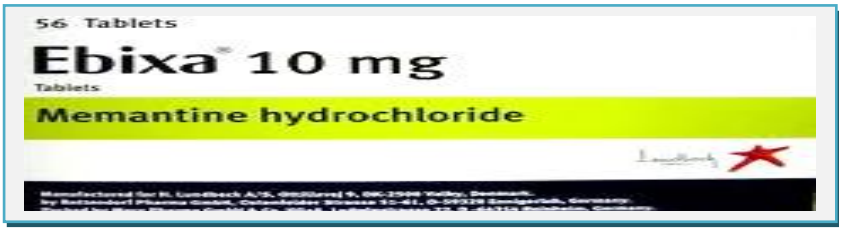
I- ***Cholinesterase Inhibitors*** **:**

Donepezil (Aricept): 5 mg at night & can be increased gradually to 10 mg. It is well tolerated (S/E: diarrhea, weight loss, bradycardia, and syncope).

Rivastigmine (Exelon): 1.5 mg twice/day & can be increased gradually to maximum 6mg twice/day (S/E: anorexia, fatigue, somnolence, and dizziness). Also available as a skin patch

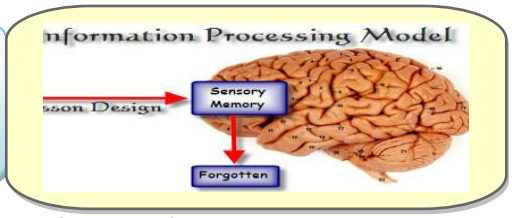
Galantamine (Reminyl): 4mg twice/day, can be increased gradually to 12mg twice/day. (S/E: similar to rivastigmine).

II- **<u>NMDA receptor antagonist</u>**; ***Memantine (Ebix)****:* an N-methyl-D-aspartate (NMDA) receptor antagonist protects neurons from neurodegenerative process induced by glutamate excito-toxicity. Memantine has been shown to have a modest effect in moderate-to-severe Alzheimer's disease and in dementia with Lewy bodies. It is , in general, well tolerated. Adverse drug reactions include confusion, dizziness, drowsiness, headache, insomnia, agitation, and/or hallucinations. Less common adverse effects include vomiting, anxiety, hypertonia, cystitis, and increased libido.



Amnestic (Amnesic) Syndrome

A 48-year-old alcoholic man displayed significant cognitive and behavioral problems. He had difficulty with learning new information and making appropriate plans.



Definition: impairment in the ***short-term memory*** (retention of new information; temporal lobe function) due to a specific organic cause, in the absence of generalized intellectual impairment. It leads to social and occupational dysfunctioning. The patient may show confabulation (filling memory gaps with incorrectly retrieved information). The insight is partially impaired.

*In contrast to delirium, the **immediate** memory is usually **intact**: i.e. digit span test (frontal lobe function) is normal. In contrast to dementia, the **remote** memory is **intact**.*

Clinical Assessment: see p 13; memory assessment (normal registration and long term memory but defected short-term recall).

Etiology:

- **Head injury lesions** (hippocampus, posterior hypothalamus and nearby midline structures).

-**Thiamine (B_1) deficiency**, (associated with alcohol abuse, gastric carcinoma, and persistent vomiting) Thiamine is essential for the enzyme transketolase, which is essential for glucose metabolism.

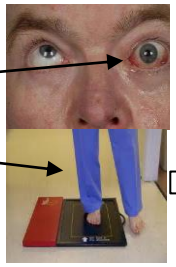
Amnestic Syndrome is most commonly found in alcohol use disorders (*Wernicke – Korsakoff's syndrome*, see below).

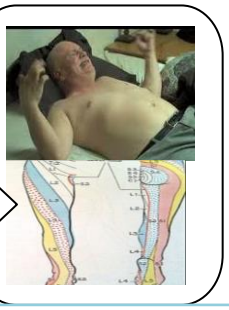
Wernicke – Korsakoff's syndrome

It starts as an ***acute* syndrome** >>>>>>>> then progresses to>>>>> **a *chronic syndrome***.

Wernicke encephalopathy

Ophthalmoplegia.
Ataxia.
Impairment of memory.
Impaired consciousness





Korsakoff psychosis

Peripheral neuropathy.

Chronic memory defect.
Irritability.

Treatment:

-Identify and reverse the cause if possible.
-Thiamine supply (if due to thiamine deficiency).
-Supportive medical measures; fluids & nutrition.
(no specific treatment).

Prognosis: If it is due to thiamine deficiency and thiamine is provided promptly, prognosis is good. Otherwise, the course is usually chronic and may be progressive. Psychiatric symptoms occur with increased frequency in patients with seizures because of underlying brain tissue injury, side effects from anticonvulsant medications, or seizure-specific psychiatric disturbances.

HEAD INJURY - Neuro-psychiatric Aspects.

Hamad is a 19-year-old male was involved in a road traffic accident lost consciousness for 5 days, and remained 3 weeks in the hospital. After discharge, his parents noticed that he became impulsive, disinhibited, and aggressive at times.

A. Acute consequences:

1.Impaired consciousness in varying duration (hours, days, weeks or months) long duration suggests poor prognosis.
2.Delirium (after severe head trauma).
3.Memory defects : on recovery of consciousness, defects of memory are usually present.
a.*anterograde (post-traumatic) amnesia*: amnesia for events in the time between the trauma and the resumption of normal continuous memory. It is a **good prognostic factor**: probably full recovery when anterograde amnesia was less than 12 hours.
b. *retrograde amnesia:* amnesia for events in the time between the trauma and the last clearly recalled memory before the injury. Final duration is frequently less than 1 minute. It is *not* a good predictor of outcome.

Factors affecting the outcome of head trauma:

1.Duration of loss of consciousness.
2. Duration of anterograde (post-traumatic) amnesia.
3. Amount and location of brain damage.
4.Premorbid personality and past psychiatric history.
5.Development of seizures.
6. Medico-legal factors e.g. compensation.

B. Chronic Consequences:

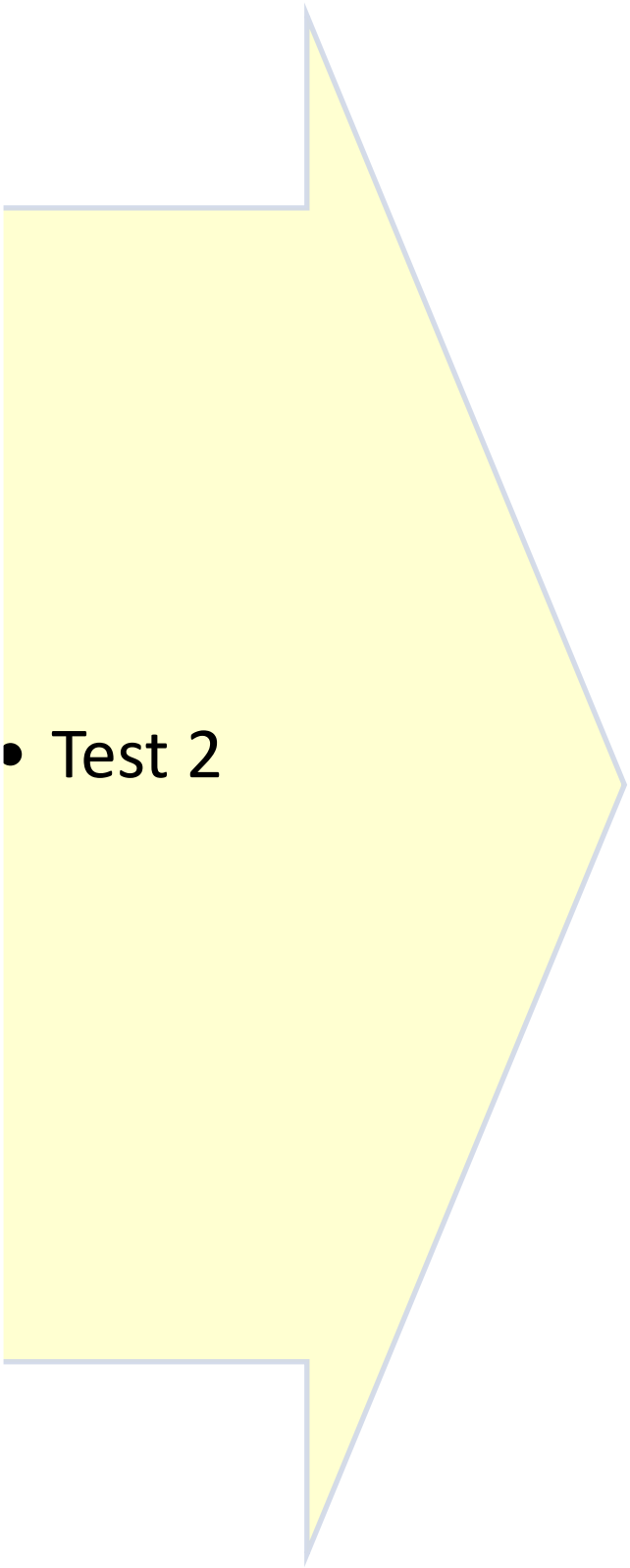
1. **Lasting cognitive impairment**: there is more likelihood of cognitive impairment when the injury has caused a prolonged post traumatic amnesia (of more than 24 hours).Cognitive impairment was particularly associated with parietal and temporal damage, especially on the left side. Recovery of function may be very slow and may continue over the years.
2. **Emotional disturbances:** depressive, anxiety and phobic features are common, and associated with somatic complaints such as headache, fatigue and, dizziness.
3. **Personality changes:**

a. There may be irritability, reduced control of aggressive impulses,
b. Sexual disinhibition and some coarsening of behavior and premorbid personality traits, particularly after frontal lobe injury.

4. **Psychotic features:** psychotic features related to depression (non-dominant frontal damage). Paranoid Psychosis (temporal lobe damage).
5. **Social consequences:** many patients and their relatives experience severe distress of head injury, and have to make substantial changes in their way of life.
6. **Medico-legal aspects**: compensation issue is more likely to contribute to disability if the patient feels someone else is at fault, financial compensation is possible, low social status and in industrial injury.

Treatment:

A plan for long-term treatment should be made as early as possible after head trauma. The treatment of the cognitive and behavioral disorders is similar to the treatment approaches used in other patients. However, head trauma patients may be particularly susceptible to the side effects associated with antipsychotics; therefore, these drugs should be initiated in lower dosages than usual and should be titrated upward more slowly than usual. Aggression and impulsivity can be treated with anticonvulsants or antipsychotics. Treatment should include physical and psychological rehabilitation to which the clinical psychologist can sometimes contribute behavioral and cognitive techniques. Problems of litigation and compensation should be settled as early as possible. Continuing psychosocial help should be provided to patient and carers, by a special team.


• Test 2

1. A 75-year-old man admitted in the surgical ward because of prostate carcinoma, urinary retention and urinary tract infection. At night, he became hostile, irritable, drowsy and uncooperative. The most likely diagnosis:
    a. Adjustment disorder.
    b. Dementia.
    c. Acute stress disorder.
    d. Delirium.

2. A 74-year-old woman known case of hypertension and diabetes mellitus developed dysarthria due to a transient ischemic attack. She has poor attention span and memory impairment for several months. The most likely primary diagnosis is:
    a. Alzheimer's disease.
    b. Delirium.
    c. Vascular dementia.
    d. Amnestic syndrome.

3. A 65-year-old woman uses antihistamine drugs for her chronic increasing insomnia. Last week she was commenced on Amitriptyline 50 mg by a GP for insomnia. Her husband found her disoriented, hallucinating and hyperthermic. Her face was flushed and her skin was dry. She developed:
    a. Neuroleptic malignant syndrome.
    b. Serotonergic syndrome.
    c. Anticholinergic syndrome.
    d. Wernicke – Korsakoff's syndrome

4. A 45-year-old man presented with disorientation, ataxia and poor memory. He asked for a referral to a specialist in eye diseases. The most likely cognitive impairment in this patient is:
    a. Short-term memory.
    b. Immediate memory.
    c. Recent memory.
    d. Orientation to time.

5. An 80-year-old man has progressive deterioration in memory, disorientation, and visual hallucinations. The most likely diagnosis is:
    a. Alzheimer's disease.
    b. Delirium.
    c. Vascular dementia.
    d. Amnestic syndrome.

Answers

1	2	3	4	5
D	C	C	A	A

Short-answer questions

Case 1. A 77- year -old diabetic woman brought by her son to the emergency department with 3 days history of fluctuating consciousness, pyrexia, dysarthria, amnesia, and disturbed behavior.

Q1. Mention two psychiatric differential diagnoses & justify each one.

Q2. Mention two clinical tests you would use to evaluate her cognitive functions.

Q3. Mention one medication used to control her disturbed behavior, the dose and the class.

Answers:

A1.

	Diagnosis	Justification
1	Delirium	Acute onset + confusion + pyrexia + disturbed behavior.
2	Vascular dementia – acute phase	Dysarthria + amnesia + old age + DM.

A2. Any 2 of the cognitive function tests (attention-concentration – orientation- memory)
1- **Attention test** (to spell a word backward e.g. World, to mention 5 words with the same letter, or by the digit span test (ability to repeat 7 digits e.g. 3,8,1,4,7,2,9 after an examiner dictates them slowly, first forward, then backward).
2- **Concentration test:** by naming the months of the year in reverse order or by subtracting serial 7s from 100 (serial 7s test): patient is asked to subtract 7 from 100 then to take 7 from the remainder repeatedly until it is less than seven.

A3. Haloperidol 0.5-2 mg (oral, IM or Slow IV); typical antipsychotic medication.
Or olanzapine 5mg (oral or IM); atypical antipsychotic medication.

Case 2: A 68-year-old man seen at out-patient clinic because of 7months history of increasing forgetfulness of very recent events, gradual loss of social skills, decreased range of interest, and multiple non-specific physical complaints. His history revealed chronic alcohol abuse.

Q1. Mention two psychiatric differential diagnoses & justify each one.
Q2. Mention 2 relevant history questions that would guide you to the diagnosis.
Q3. Mention one important lab. Investigation that you would request and the reason?

Answers

A1.

	Diagnosis	Justification
1	Dementia (Alzheimer or vascular).	7months h/o increasing forgetfulness of very recent events, gradual loss of social skills, decreased range of interest, and multiple non-specific physical complaints.
2	Amnesic Syndrome	chronic alcohol abuse + increasing forgetfulness of very recent events

A2. Any 2 of the following

- Past history of :

** impaired consciousness / Ophthalmoplegia / Ataxia (>> Wernicke *encephalopathy*)

** Peripheral neuropathy (>>> Korsakoff psychosis).

OR - Features suggestive of vascular dementia (stepwise course – neurological features …).

A3. Lab Investigation is B 1 (thiamine). The reason : low B1 in alcohol abuse.
OR Lab Investigation is B 12 (or TFT) The reason : dementia due to low B12 or hypothyroidism.

Case 3: A 64-year-old hypertensive woman seen regularly at cardiology clinic presented with 3 months history of deterioration of mental functions, decreased range of interest, poor sleep, poor appetite, and multiple non-specific physical complaints**.**

Q1. Mention two psychiatric differential diagnoses & justify each one.
Q2. Mention 2 relevant clinical questions (history / MSE) that would guide you to the diagnosis.
Q3. Would you recommend Bain CT-scan ? and why (justify your answer whether yes or no):

Answers
A1.

	Diagnosis	Justification
1	Dementia (Alzheimer or vascular).	Old age- deterioration of mental functions.
2	Major Depressive Episode (Pseudo-dementia).	Decreased range of interest, poor sleep, poor appetite, and deterioration of mental functions.

A2. Any 2 of the following:

1- Which features started first; in MDE depressive features proceed cognitive disturbances & vice versa.

2- Onset: in MDE: cognitive disturbance is relatively of rapid onset.

3- Awareness: Patient with MDE (pseudo-dementia) is aware of his cognitive problems & often answers, “I don’t know” compared to confabulation in demented patient.

A3. Yes , because brain CT scan is normal in pseudo-dementia and abnormal in dementia (wide sulci-ventricles- infarcts …).

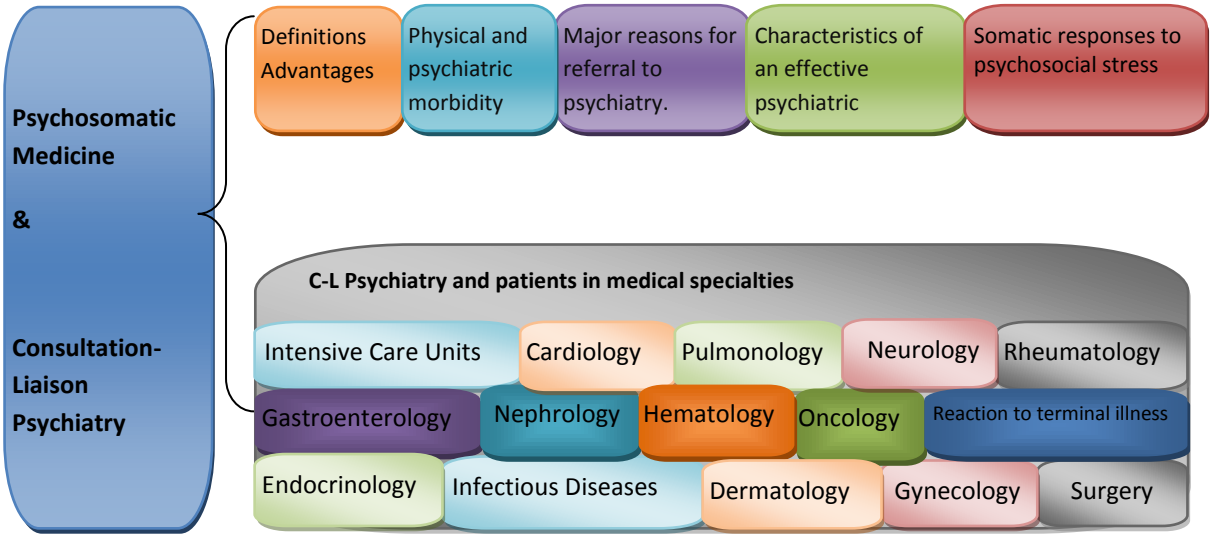
3

Psychosomatic Medicine.

C-L Psychiatry.

&

Somatic Symptom and Related Disorders.


Psychosomatic Medicine
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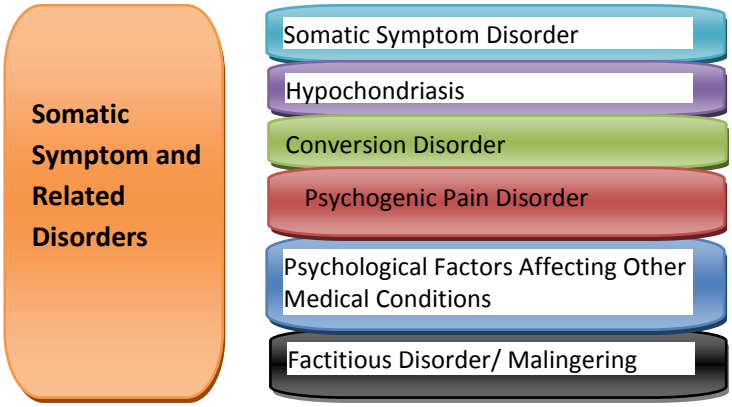
Somatic Symptom and Related Disorders
Somatic Symptom Disorder
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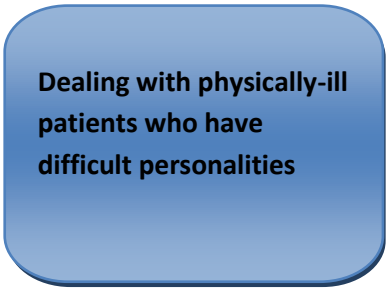
Dealing with physically-ill patients who have difficult personalities

A 57-year-old man had a **stroke** 2 years ago. He then showed low mood, loss of interest, crying spells, difficulty sleeping and death wishes.

A 48-year-old man had developed a **myocardial infarction**. In the coronary care unit, he was tearful, apprehensive, tremulous, and his chest pain symptoms worsened.

There is a unity of mind and body. Thus, psychological factors should be taken into account when considering any medical disease. It is helpful to know and differentiate between the following terms:

***Disease* :** pathophysiological process recognized by physicians. It is *objective* based on biological changes in the body.

***Illness*:** individual's understanding of disease. It is *very subjective* and varies from person to person.

***Illness behavior*:** patient's behavior to adjust to his disease. This can be adaptive (e.g. consulting doctors, accepting to be referred to psychiatrist, taking medications) or non-adaptive (e.g. exaggerating symptoms, refusing medication). Personality factors play a major role in the psychological adjustment to physical diseases.

***Illness-denying* attitude**: a tendency to underestimate physical symptoms and to deny physical diseases. It is a psychological defense against weakness. It may help some patients with certain serious diseases.

***Illness-affirmative* attitude**: a tendency to exaggerate mild physical symptoms and to affirm physical diseases. It can lead to hypochondriasis; excessive concern & preoccupation with physical diseases see later.

***Sick Role*:** socially expected/required role of ill person e.g. exemptions from some responsibilities, the right to seek care and help from others. If sick role continues after the disease is over the sick role is maladaptive.

Doctor - Patient Relationship (There are **4** main approaches / not mutually exclusive):

1.The autocratic (paternalistic) approach: the physician generally dominates the interview (as the doctor knows best) and the patient is expected to comply without questioning. It can of value in certain emergency situations.

2.The informative approach: the physician dispenses information without suggestion or interference and the choice is left to the patient. It may be appropriate for certain one-time consultations.

3.The shared decision approach: the physician is flexible, presents and discusses alternatives with the patient.

4.The deliberative approach: the physician advocates a particular course of action (e.g. how to lose weight).

***Physicians as Patients*:** Physician-patients are usually poor patients, most likely because they are trained to be the masters of the patient-doctor relationship. For a physician, being a patient may mean becoming dependent, and giving up control. They may be embarrassed to ask pertinent questions for fear of appearing incompetent. The treating physician may fear criticism of his or her skills or competence.

Biopsychosocial Model (Engel 1977): It stresses an integrated systems (biological, psychological, and social) approach to human behavior and disease (etiology and management). It encourages a comprehensive understanding of disease and treatment. Each system affects, and is affected by, every other system.

Psychosomatic medicine: It is based upon observation that psychological and sociocultural factors play a role in the predisposition, onset, course and response to treatment of some physiological changes and biomedical disorders.

Liaison Psychiatry: It is the work of a psychiatrist in a general hospital, which covers the area between psychiatry and other branches of medicine where he attends medical ward rounds and other clinical meetings.

Consultation Psychiatry: Each patient, on whom an opinion is sought, is referred to the psychiatrist who may visit the ward at any time. ***Consultation-Liaison (C-L) Psychiatry***: is the study, practice, and teaching of the relation between medical and psychiatric disorders. It is associated with all the diagnostic, therapeutic, research and teaching services that psychiatrists perform in the general hospital and serves as a bridge between psychiatry and other specialties. The psychiatrist and physician meet regularly to discuss individual patients and general aspects of patient care. It is not confined solely to psychiatric disorders.

Advantages of consultation-Liaison psychiatric services:

1. Improve the quality of life and the quality of care provided to patients in non-psychiatric wards, e.g. reduce the number of unnecessary investigations performed for physical symptoms that actually reflect underlying psychological distress.
2. Reduce the length of patient's stay in the hospital and the readmission rate .Thus, reducing the cost and increasing the vacancy capacity and bed turnover.

Consultation-liaison psychiatry involves the practical application of all psychiatric knowledge, ideas, skills, and techniques where they may be helpful to non-psychiatrists in the care and understanding of their patients.

Physical and psychiatric morbidity:

There are different types of association between physical and psychiatric morbidity

1. Psychiatric *reactions to* physical disease (e.g. anxiety provoked by heart disease).
2. Psychiatric disorder *presenting with* physical symptoms (e.g. dizziness as a feature of anxiety).
3. Psychological factors *affect* the physical illness through:
   - Prolonging the course (e.g. anxiety may prolong the course of essential hypertension).
   - Maintaining unhealthy habits (e.g. psychoactive substance abuse).
   - Determining whether a person seeks helps from a doctor for a physical complaint (e.g. a person may seek medical help for backache when he feels depressed, but not when his mood is normal).
   - Affecting compliance with treatment (e.g. neglecting the oral hypoglycemic agents when depressed).
4. Psychiatric and physical illness *occurring together independently* (e.g. gallstone and depression).The physical illness may exacerbate psychiatric symptoms.
5. Physical disease *presenting with* psychiatric features (e.g. psychosis as early presentation of SLE).

The major reasons for referral to psychiatry:

1. The patient has a psychiatric disorder, on psychotropic medications, or has a past history of such.
2. The staff are under strain over the patient because of his behavior is disturbing, demanding, manipulative, or suicidal.
3. Diagnostic uncertainty with suspicion of a psychiatric problem behind the physical symptoms.
4. The patient has asked to see a psychiatrist. However, patients are usually reluctant to see psychiatrist, and families may reinforce this attitude.

Characteristics of an effective psychiatric consultation:

1. Reviewing the patient's chart.
2. Obtaining a good psychiatric history (paying attention to psychological and social factors).
3. Mental State Examination (and Mini – Mental State Examination if cognitive impairment is suspected).
4. Making a logic differential diagnosis among medical, neurological and psychiatric disorders.
5. Arriving at a diagnosis based on clinical features, laboratory investigations, and psychiatric knowledge.
6. Making reasonable treatment recommendations (medications, psychological treatment, etc.).
7. Following the patient during the entire hospitalization and after discharge.

On receiving the request for a consultation, the psychiatrist should make sure that the referring doctor has discussed the psychiatric referral with the patient. Before interviewing the patient, the psychiatrist should read the relevant medical notes and ask the nursing staff about the patient's mental state and behavior. The psychiatrist should know about treatment the patient is receiving. It may be necessary to ask further questions of the ward staff or social worker, to interview relatives and inquire about the patient's social background and any previous psychiatric history. It is often appropriate to discuss the proposed plan of management with the referring team. Nursing staff can help in the management of most brief psychiatric problems that arise in a general hospital.

Somatic responses to psychosocial stress:

Neuroendocrine responses:

Stress **>>** autonomic hyperarousal **>>** secretion of CRF from the hypothalamus **>>** release of ACTH **>>** stimulation of adrenal cortex to release glucocorticoids > **>** "flight or fight" response; increasing cardiovascular activity and promoting energy use.

Neuroimmune responses:

a- Stress **>>** glucocorticoids**>>**inhibition of immunity, reproduction, and growth.

b- Stress **>>** norepinephrine release **>>** immune activation > **>** release of cytokines (humoral immune factors) **>>** further release of CRF **>>** glucocorticoids.

C-L Psychiatry and patients in medical specialties

Intensive Care Units	Cardiology	Pulmonology	Neurology	Rheumatology
Gastroenterology	Nephrology	Hematology	Oncology	Reaction to terminal illness
Endocrinology	Infectious Diseases	Dermatology	Gynecology	Surgery

Depression is significantly associated with a wide variety of chronic physical disorders, including hypertension, cardiovascular disease, stroke, chronic respiratory disorders, diabetes, arthritis, asthma, cancer, and a variety of chronic pain conditions. Depression is a causal risk factor, it leads to an increased prevalence of these physical disorders, with all their associated impairments and increased mortality risk. In physically-ill hospitalized patients depressed mood is common. It can be primary, secondary to, or coexisting with the physical disease. Many medications can induce depression (e.g. antihypertensives, steroids, chemotherapy). Depressive disorders in psychiatric patients will be discussed later (see mood disorders).

Intensive Care Units (ICUs): Patients may experience delirium, depression, or anxiety. ICUs staff members face difficult emotional and physical circumstances e.g. deaths and medical disasters.

Cardiology:

Psychiatric patients may present to cardiology clinic because of 1. Palpitation associated with anxiety or panic attacks 2. Excessive worries about having a hidden serious cardiac disease (hypochondriasis; see later). **Patients with cardiac diseases** may present to psychiatry clinic because of depression as a side effect of medications (e.g. prolonged use of beta-blockers).

Depression is an *independent risk factor* for the development of hypertension (HTN), coronary artery diseases, (CAD) myocardial infarction (MI), & heart failure and for mortality after an acute MI. Mortality rate at 6-month follow-up in depressed post-MI patients (compared to non-depressed post-MI patients) is 4 folds. Research indicate that 15 - 25% of patients with CAD fulfill criteria for major depression.

Pathophysiology:
1.Vasospasm; due to high cortisol levels (hyperactivity of Hypothalamus-Pituitary-Adrenal Axis). 2.Atherosclerosis; Inducing inflammatory process that enhances plaque formation (inflammatory cytokines; Interleukin-6 [IL-6] and C-reactive protein[CRP]).
3. Thrombus formation; platelets activation (increase in pro-coagulant activity & level of binding of anti-ligand-induced binding site -anti-LIBS- antibody to fibrinogen-induced binding sites).
4. Depression increases the risk factors of cardiovascular diseases (DM, HTN, smoking, and obesity).

Antidepressants**;** reduce the risk of cardiovascular diseases in depressed patients.

1. Avoid tricyclics (serious conduction side effects, orthostatic hypotension, & drug interactions).

2. Selective Serotonin Reuptake Inhibitors (SSRIs); safe and well-tolerated but they might prolong bleeding time, and cause hyponatremia. Paroxetine has some anticholinergic activity. Citalopram 20 mg is a good choice

3. Selective Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs); Venlafaxine is well tolerated but in doses **>** 225 mg it may increase blood pressure (BP) in some persons.

Pulmonology:

Psychiatric patients may present to Pulmonology Clinic because of 1. Shortness of breath associated with anxiety, panic attacks, or as a side effect of beta-blockers, which are frequently prescribed to treat tremor and palpitation. Before starting beta-blockers always enquire about bronchial asthma [**BA**] (beta-2 receptors dilates bronchioles). Patients with asthma frequently suffer from anxiety symptoms. Among asthmatics, 42% reported anxiety focused on breathing, compared with 20% of **COPD** patients. Treatment of **BA** may precipitate anxiety. Obstructive sleep apnea syndrome **[OSAS]** is a common disorder in the adult population; it is often associated with significant cognitive impairments, depression, and irritability. Heroin addicts may develop respiratory depression (due heroin over dose) and pulmonary emboli from agents added to heroin (i.e., talc) or from septic emboli.

Neurology

 # Stroke:

A- Depression >>> stroke; meta-analysis studies demonstrate that depression is a significant modifiable risk factor for total stoke, fatal stroke, and ischemic stroke (see pathophysiology of depression in cardiovascular diseases). SSRIs increase bleeding tendency by inhibiting platelet aggregation and have been associated with higher risk of further strokes.

B- Stroke >>> depression; stroke may predispose, precipitate or perpetuate depressive disorders (Post-Stroke Depression [**PSD**]). Depression occurs in nearly 30 % of patients either during acute/chronic stroke period. About 80% of cases are under-diagnosed by non-psychiatric clinicians (due to lack of awareness/experience & diagnosis difficulties; aphasia, dysarthria, cognitive impairment). PSD has been associated with poor social and rehabilitation outcomes, cognitive impairment and increased mortality. About 10% PSD patients face mortality. **DDx:** vascular dementia, post-stroke apathy**. Risk Factors for PSD:** left anterior brain lesion, dysphasia and living alone. However, after 3 years post-stroke, the most important predictor for depression was cerebral atrophy. More evidence is required before recommendations can be made about the routine use of antidepressants to prevent PSD.

Treatment: pharmacologic and rehabilitation strategies are needed to treat PSD. **SSRIs** (e.g. citalopram) are effective in PSD and dramatically reduce the symptom of crying (but there is a risk of bleeding tendency due to inhibition of platelet aggregation).

 # Multiple Sclerosis: It is a central nervous system (CNS) demyelinating relapsing and remitting illness**.** It is chronic, disabling neurologic illness among young and middle age adults. Patients have temporary loss of vision, or dysconjugate gaze. When the spinal cord is attacked, patients typically develop paraparesis. Spinal cord involvement also leads to urinary and sexual dysfunction. Late in the illness, pseudobulbar palsy (sudden, unprovoked fits of laughing or crying**)** appear when large areas of frontal lobe myelin have been consumed by plaque. MRI of the brain and spinal cord typically shows lesions in affected areas. Sequelae to MS include cognitive impairment, psychosis, depression, and anxiety. Ms may be misdiagnosed as a conversion disorder (see later). Steroids can reduce neurological symptoms but may induce psychosis or affective disturbances.

 # Epilepsy: it has many comorbid psychiatric disturbances, which prompt psychiatric consultation and collaboration with neurologists, neurosurgeons, and other specialists. Partial complex seizures may present with psychosis, panic-like attacks, and delirium. Depression is common in epileptic patients (bidirectional relationship). Epilepsy increases the risk of depression and treatment of depression increases frequency of seizures.

 # Delirium, # Dementia, Amnesic Syndrome & #Head Injury.

Rheumatology:

 # Systemic lupus erythematosus (SLE): antineuronal antibodies and vasculitis in SLE can cause a range of neuropsychiatric symptoms; cognitive dysfunction, hallucinations, delusions, depression, suicidal ideation, and personality changes in ≥ 70 % of patients. Psychosis may be due to direct CNS involvement or, less frequently, to side effects of corticosteroid treatment. Mania, when present, is usually a side effect of corticosteroid therapy. Delirium becomes a more likely complication as the severity of overall SLE symptoms increases.

 # Rheumatoid arthritis (RA); is frequently characterized by psychiatric comorbidity (mostly depression or anxiety). Direct CNS involvement is rare in RA. Tricyclic antidepressants (e.g. amitriptyline 25-50mg) are prescribed to treat depressive, anxiety, and pain symptoms in RA patients.

Gastroenterology:

 # Peptic Ulcer (PU); psychological distress may induce and exacerbate PU**.** Psychological treatment is advised.

 # Irritable Bowel Syndrome (IBS): It is very common in G. I. Clinics. Features include fluctuating nonspecific abdominal discomfort, distention, and alteration of bowel habits; constipation or diarrhea (with occasional mucous in the stool but no blood). SSRIs and psychological treatment can improve the symptoms and quality of life.

 # Inflammatory Bowel diseases (IBD): early inflammatory processes in the gut might lead to psychiatric illness (depression, anxiety, or irritability) or vice versa, or a third factor might lead to both.

 # Interferon therapy in hepatitis C patients has psychiatric side effects (e.g. severe depression, suicidal ideation). SSRIs can be given safely to reduce depressive symptoms in such patients.

 # Hepatic Encephalopathy: broad range of neuropsychiatric manifestations (impairment of cognition, consciousness, the sleep-wake cycle, and personality changes.

Nephrology:

Patients with chronic renal failure are prone to have delirium because of uremia and electrolytes disturbances. Prolonged hemodialysis attributed to aluminum intoxication, which can lead to **dialysis encephalopathy** (dysarthria /dysphasia/myoclonus/ataxia/seizures/dementia).

Some Psychiatric patients may develop renal problems due to side effects of psychotropic medications either directly (e.g. lithium), or indirectly (e.g. antipsychotics >> neuroleptic malignant syndrome >> severe prolonged muscle rigidity >> muscle destruction >> excessive amounts of myoglobin in the blood >> acute renal failure).

Hematology: Heroin addicts may present with vein thrombosis **>>>** pulmonary embolism. Patients with severe pain due to sickle cell hemolytic crises may become addict on medical narcotics (e.g. pethidine).

Oncology:

A. Depression >>> cancer: Whether depression can induce certain types of cancer remains a subject for research.

B. Cancer >>> depression (due to several biopsychosocial factors including chemotherapy). However, depression is more challenging to diagnose in patients with cancer because illness produces many neurovegetative symptoms: psychomotor retardation, fatigue, apathy, and poor concentration, appetite reduction, weight loss, and sleep disturbances. Clinical depression is prevalent among cancer patients with rates ranging between 13 and 40%. Many oncologists consider depression part of the illness and wrongly believe that if the cancer can be treated, then the accompanying depression will remit on its own. Meta-analysis research presented evidence that depression predicts mortality, but not progression, in cancer patients. Quality of life was shown to commonly predict survival perhaps even better than performance status. Most oncology divisions now have a psycho-oncology unit that provides psychosocial education, enhances the development of therapeutic communication skills for oncology staff, and seeks to study psychological and behavioral variables that may play role in cancer risk and survival. Studies that assessed depression years before cancer diagnosis found more associations with mortality than studies that assessed depression following cancer diagnosis psychological variables might have a stronger effect on disease progression and mortality in early stages of cancer. Psychological treatments (e.g. guided imagery, mindfulness based stress reduction [MBSR]) can enhance immunity, reduce fear of recurrence, and improve physical functioning in some patients. Psycho-neuro-immunity: Negative emotions are involved in the initiation or progression of cancer, and autoimmune disorders.

Psychological reactions to terminal illness & impending death.

The following psychological stages (proposed by Elizabeth Kubler-Ross) are widely encountered .These stages begin when the patient is first aware of a terminal illness. Not everyone goes through each stage and the order may be different for each person.

1. **Denial/Disbelief:** "This can't be happening, not to me, I feel fine". It is a temporary shock defensive response to the psychological trauma of bad news. Some persons never pass beyond this stage and may keep going from doctor to doctor searching for one who supports their position.

2.**Anger** –"How can this happen to me?"; *"Who is to blame?"* "Why me? It's not fair!""Others are more deserving". Anger arises once the subconscious accepts the reality of the bad news and denial cannot continue. Patient becomes frustrated, irritable, and angry. Anger towards doctors, nurses, medical agencies, relatives, fate, self, and even God/Allah (Why me and now?!). Anger may be associated with envy of healthy people. Therefore, at this stage the person may become very difficult to care for due to misplaced feelings of rage and envy. It is essential for doctors not to take this anger personally. It represents patient's desire for controlling what he feels out of control.

3.**Bargaining** –"I will give/ do anything for a few more years." It is a negotiation for an extended life, made with a higher power in exchange for a reformed lifestyle. Bargaining arises when the subconscious recognizes that anger does not help. Psychologically, the subconscious is saying, "anger did not work maybe being good will work, I understand I will die, but if I could just have more time...". It involves the hope that the individual can somehow postpone or delay death.

4.**Depression** – "Nothing worked, death is certain; I'm going to die, no way ". Depression arises when the subconscious realizes that nothing has worked to prevent or delay the coming death so that despair and hopelessness prevail. Depressive features appear; low mood, low interest, , weeping, poor appetite, disturbed sleep and isolation, negative thoughts (dependence on others, loss of financial support …). It is not recommended to attempt to cheer up an individual who is in this stage. It is an important stage for grieving that must be processed.

5.**Acceptance** – "death is inevitable, I can't fight it, I better give up resisting and prepare for it." The subconscious begins to come to terms with mortality. This is not a "happy" stage; it is usually void of feelings. It takes a while to reach this stage and a person who fights until the end will not reach it.

These steps do not necessarily come in the order noted above, nor are all steps experienced by all patients. Any patient could experience the stages in a different order, or could experience emotions not even mentioned in the stage theory.. Research has found that those who felt they understood their purpose in life, or found special meaning, faced less fear and despair in the final weeks of their lives than those who had not.

الأثر النفسي للاحتضار

أ د محمد الصغيّر

يتفاوت حسب الجبلة والمعتقدات والتنشئة والظروف المحيطة

١- المحتضر

أ- خوف على ذاته:

- خروج الروح **(+ ألم سكرات الموت).**
- الحساب.
- المصير.

ب- خوف على غيره.

أولاد / شريك حياة /..

ج- حزن:

- **فراق من وما يحب.**

رفع الرجاء والتذكير برحمة الله

٢- أقاربه / مرافقيه

أ- الصدمة الأولى:

- صعق الشعور فوق تحمله المعتاد/ هول المصيبة.

الشعور: خدر كالتنميل لا حزن ولا غضب.

الإدراك: خلل في التوفيق بين الحقيقة والأمل؛ نفي الحدث داخل النفس- لعله حلم أو كذب .

السلوك: تشبث ببقاء المفقود (أنعشوه سيعود للحياة.)+ مساومة (بالنذر أو الصدقة المشروطة)

 # الجسد: عدة أعراض متنوعة.

ب - إدراك الحقيقة بألمها:

الجزع؛غضب للفقد (على من ؟/ ...).

ج –الحزن والأسى (صحيّة نفسيا).

مهارات إيصال الخبر المرير + الانتباه لاحتمال العدوانية تجاه الذات أو الغير (الطاقم الطبي).

القتل في المشاجرة ؟! < القصاص

٣- الطاقم الطبي

آثار نفسية طبيعية:

مشاعر مختلطة: خوف سكرات الموت والحساب والمصير وحزن و أعراض جسدية(محدودة الشدة والمدة).

آثار نفسية مرضيّة:

- ***رعب و شعور بحلول الموت.***
- ***تكرر المشهد في الذهن يقظة ومناما مع انزعاج وعجز عن التخلص منه.***
- ***قلق وتجنب ما يتعلق بالمشهد.***
- ***أعراض جسدية متنوعة.***

التهيئة المسبقة وتدريبات خفض القلق / + -

ندوة الجوانب النفسية للاحتضار - ١٤٣٤

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Endocrine Disorders

 # Diabetes Mellitus (DM):

Depression; depression and DM have bidirectional relationship. Depression may induce DM through prolonged hyperactivity of Hypothalamus-Pituitary-Adrenal Axis **>>** high cortisol levels. Depression in DM is under-recognized and undertreated. Depression is two times more prevalent in patients with DM than in the general population. Depressive symptoms are reported by up to 40% of DM patients. Rates of DM complications appear to be greater in patients with depression (see effect of depression on cardiovascular system above). Research found a significant impact of depression treatment on diabetes control. Psychiatric patients receiving second-generation antipsychotics (e.g. olanzapine, risperidone) are prone to develop metabolic syndrome, which increases risk of type II DM. **SSRIs** (e.g. fluoxetine) can give good results in treating depression in DM patients and improving blood sugar control. Attention to worsening of sexual dysfunction, drug interactions, and weight change should guide the choice of SSRIs and the adjustment of dosing. **Duloxetine (SNRI)** carries possible benefits in peripheral neuropathy symptoms and control of pain.

Hypoglycemia in Type 1 DM (IDDM) patients may present with panic-like features (sweating, tremor, palpitation, and anxiety). Beta-blockers, when prescribed to patients with IDDM mask the alarming features of hypoglycemia and leading to serious metabolic and neuropsychiatric complications. Severe hypoglycemia can present with delirium.

 # Thyroid Dysfunctions:

Hyperthyroidism can present with anxiety, panic attacks, mania, psychosis, and delirium.
Hypothyroidism can present with depression, psychosis, and dementia. Thyroxin supplement may induce anxiety features (tremor, palpitations, and worries)

 # Hypercortisolism: **Cushing's disease** results from excessive ACTH secretion due to a pituitary adenoma) whereas **Cushing's syndrome** includes all causes of excess cortisol; it may result from exogenous administration of glucocorticoids, adrenal tumors, or other ectopic ACTH-producing tumors. Excessive steroids in the body may induce anxiety, depression, mania, psychosis, and delirium. Depression in Cushing syndrome is reported to improve with treatment of the syndrome. Corticosteroids therapy (e.g. SLE, MS) is associated with predominance of manic episodes and frequent psychotic symptoms. Antipsychotics (e.g. olanzapine 10mg) can be given to control such complications.

Infectious Diseases

 # TB; Psychiatric symptoms have long been recognized as common complications of anti-TB therapy (notably INH and cycloserine); depression, attempted suicide, irritability, mania, and psychosis. There have been recent concerns over the possible drug interactions between INH and SSRIs that were based on the ability of INH to inhibit MAO enzyme >> serotonin syndrome.
 # HIV; depression in HIV-infected individuals is as high as 50%. SSRIs/SNRIs and interpersonal psychotherapy (IPT) can reduce depressive features in such patients. AIDs can present with cognitive impairment; delirium or dementia.

 # Hepatitis C: interferon therapy **>>>** depression: give an SSRI (see gastroenterology).

Dermatology:

Psycho-dermatologic disorders (e.g. psoriasis, vitiligo, alopecia, pruritis …) are conditions involving an interaction between the mind and the skin. The skin is an interface, attacked by external factors, as well as expressing psychic conflicts. Many dermatological diseases have a direct or indirect link with psychiatric pathology. Many skin diseases are cosmetically disfiguring and adversely affecting quality of life. They can be treated with psychotherapeutic techniques and psychotropic drugs.

Gynecology

 # Premenstrual Syndrome (PMS): A group of physical and psychological features beginning a few days before and ending shortly after the onset of menstrual period. **Psychological features**: tension, anxiety, irritability, nervousness and low mood. **Physical features**: abdominal distension and pain as well as breast tenderness. The condition may lead to social, academic or marital dysfunctioning. No specific cause has been found. Treatment: Support, identify and treat familial and social stresses, cognitive-behavior therapy (CBT). Many drugs have been tried (hormones, psychotropic drugs..) with varying degrees of response.

 # Amenorrhea due to antipsychotics: females with psychotic disorders treated with antipsychotics are prone to develop amenorrhea because of high prolactin levels (prolactin secretion is usually inhibited by dopamine and most antipsychotics have antidopaminergic effect notably risperidone). Some gynecologists prescribe dopaminergic medications (e.g. bromocriptine) to reverse amenorrhea in psychotic females, which may aggravate their psychosis. Quetiapine (a second-generation antipsychotic) has no effect on prolactin, thus it is a good choice in such cases.

 # Pregnancy: Minor psychological symptoms are common during pregnancy, especially in the first and third trimesters (anxiety, irritability and minor lability of mood). Risk increases in case of unwanted pregnancy, marital conflicts, and previous history of abortion or depression and in adolescent mothers. Management consists of: counseling, increased support by medical services as well as family and marital therapies. Medications are rarely used and should be avoided in the first trimester.

Lithium may cause congenital cardiac anomalies. Valproate may cause neural tube defects (e.g.spina bifida). Tricyclics may be indicated in second and third trimester.

 # Abortion: Depressive mood is an expected reaction especially if there is a previous history of abortion, a past psychiatric history or poor marital adjustment. Counseling, reassurance and supportive therapy are indicated.

 # Maternity Blues: Brief emotional disturbance (tearfulness, irritability, crying, lability of mood, insomnia and poor concentration) starts 2-3 days after delivery, remains for few days. Very common (about 50 %), more common in primiparous and those who complain of PMS. May be related to hormonal changes. No specific treatment. General measures are enough; reassurance, support … etc.

 # The Menopause: Menopausal women often complain of multiple physical symptoms including sweating, dizziness, flushing, headache. No strong evidence that depressive symptoms are more common in menopausal women than in non-menopausal. Psychiatric symptoms at menopause could have several causes: altered perception of the self, altered relationship with husband, children leave home (empty nest syndrome), Parents become ill or die. Oestrogen deficiency has been suggested but the results of oestrogen replacement were much debated. Depression and anxiety in a menopausal women can best be treated with the usual methods that have been shown to be effective for these disorders at any other time of life.

 # Infertility: It can be complicated by feelings of depression, guilt, and inadequacy frequently accompanied the perception of being infertile**.** Psychotherapy gives good results.

 # Post-Partum Depression (see mood disorders). **# Post-Partum Psychosis:** (see psychotic disorders).

Surgery

Mrs. Fatima is a 34- year- old woman hospitalized for cholecystectomy. She became excessively worried about the operation procedures and complications. She refused to sign consent for the operation.

Surgical wards often have psychiatric patients who may disrupt the smooth functioning necessary for a surgical unit and can result in danger to the patient or others (e.g., staff, visitors, other patients).

Common psychiatric consultations in surgical ward:
There is a linear relationship between anxiety before and after surgery. Those who show more general ability to cope with stress suffer fewer post-operative psychiatric problems. Psychological preparations for surgery can reduce post-operative distress and problems.

Psychiatrists are sometimes asked to advise on the capacity to consent (see below) and management of patients with pain.

Delirium is common after major surgery especially in the elderly (see epidemiology of delirium).
Adjustment disorders are common following mastectomy and after surgery that has not lead to the expected benefit.
Phantom limb sensations follow limb amputation.
Organ transplantation is associated with certain psychosocial stresses that may cause anxiety or depression. Problems of transplant rejection are frequently associated with anger and low mood. Psychological symptoms may also occur as side effects of immunosuppressive drugs, steroids in high doses and antihypertensive drugs.

Clinical-legal issues

Does a mental illness imply a loss of autonomy & capacity to consent?
No, not all mental illnesses imply that. Only when a mental illness (e.g., dementia) results in a permanent impairment of understanding, judgment, and competence for decision-making. The physician then should consider alternative ways for decision-making, through official court proceedings such as guardianship, or proxy.

Durable Power of Attorney: It permits persons to make provisions for their own anticipated loss of decision-making capacity. The document permits the advance selection of a substitute decision maker who can act without the necessity of court proceedings when the signatory becomes incompetent through progressive dementia.

***Respect for autonomy*:**
Autonomy requires that a person acts intentionally after being given sufficient information and time to understand the purpose, benefits, risks, and costs of all reasonable options and decisions about his/her wealth, family, heath (e.g. providing or withdrawing consent).

Capacity to consent; ability to: 1- Understand information & options relevant to his condition. 2- Appreciate his own clinical situation (insight into the need for treatment). 3- Form a sound decision about his condition.
4- Provide a consistent choice**.**

Valid informed consent*:*
1-Person: has capacity to consent.
2-Explanation of sufficient information about the purpose, benefits, risks, and costs of all reasonable options and decisions concerning the matter in hand.
3-Time to understand and decide. ***4-No coercion or deceit.*** **5-The right to withdraw consent.**

Somatic Symptom and Related Disorders

Mr. Ziad is a 39- year-old man referred to outpatient psychiatry clinic by a cardiologist with several months' history of intense worries about serious heart disease and fear of sudden death. He kept asking the cardiologist to repeat ECG & echocardiogram despite the normal findings.

These are a group of disorders in which physical symptoms are the main complaints and cannot be explained fully by a medical condition, a direct effect of a substance or a mental disorder. Psychological factors are judged to be behind the somatic symptoms and complaints. They usually lead to distress and / or functional impairment in social, occupational or academic aspects.

Somatic Symptom and Related Disorders (DSM -5)

- Somatic Symptom Disorder
- Illness Anxiety Disorder
- Conversion Disorder (Functional Neurological Symptom Disorder)
- Psychological Factors Affecting Other Medical Conditions
- Factitious Disorder

Somatic Symptom and Related Disorders

In DSM-5, somatoform disorders are now referred to as somatic symptom and related disorders. Diagnoses of somatization disorder, hypochondriasis, pain disorder, and undifferentiated somatoform disorder have been removed.

Somatic Symptom Disorder

Because the distinction between somatization disorder and undifferentiated somatoform disorder was arbitrary, they are merged in DSM-5 under somatic symptom disorder, and no specific number of somatic symptoms is required.

Hypochondriasis (Illness Anxiety Disorder)

Hypochondriasis has been eliminated as a disorder, in part because the name was perceived as pejorative and not conducive to an effective therapeutic relationship. Most individuals who would previously have been diagnosed with hypochondriasis have significant somatic symptoms in addition to their high health anxiety, and would now receive a DSM-5 diagnosis of somatic symptom disorder. In DSM-5, individuals with high health anxiety without somatic symptoms would receive a diagnosis of illness anxiety disorder (unless their health anxiety was better explained by a primary anxiety disorder, such as generalized anxiety disorder).

Conversion Disorder (Functional Neurological Symptom Disorder)

Criteria for conversion disorder (functional neurological symptom disorder) are modified to emphasize the essential importance of the neurological examination, and in recognition that relevant psychological factors may not be demonstrable at the time of diagnosis. Medically unexplained symptoms do remain a key feature in conversion disorder.

Pain Disorder

Most individuals with chronic pain attribute their pain to a combination of factors, including somatic, psychological, and environmental influences. In DSM-5, some individuals with chronic pain would be appropriately diagnosed as having somatic symptom disorder, with predominant pain. For others, psychological factors affecting other medical conditions or an adjustment disorder would be more appropriate.

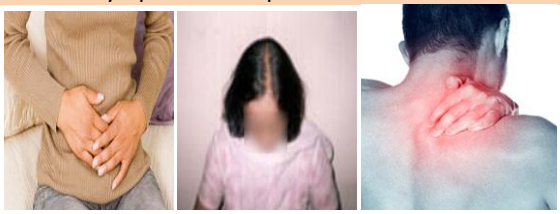
Psychological Factors Affecting Other Medical Conditions and Factitious Disorder

This disorder and factitious disorder are placed among the somatic symptom and related disorders because somatic symptoms are predominant in both disorders, and both are most often encountered in medical settings.

Somatoform disorders :(for further details; >>Basic Psychiatry chapter 14)

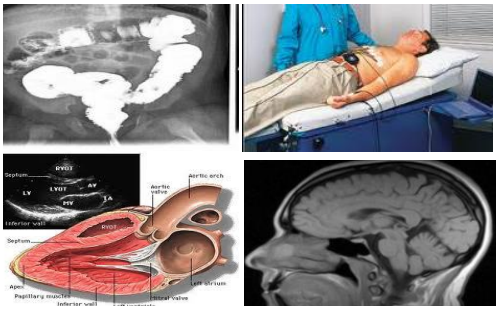
1-Somatic Symptom Disorder

Because the distinction between somatization disorder and undifferentiated somatoform disorder was arbitrary, they are merged in DSM-5 under somatic symptom disorder, and no specific number of somatic symptoms is required.



2- Illness Anxiety Disorder (Hypochondriasis)

Excessive worries about having a hidden serious physical disease (e.g. cancer, organ failure, AIDS).



3- Functional Neurological Symptom Disorder (Conversion Disorder)

A subconscious conversion of a psychological conflict into an acute loss of physical functioning, which suggests a neurologic disease; motor (e.g. paralysis) or sensory (e.g. anesthesia) deficit. The symptom is temporarily related to a psychological stressor.

4-Psychogenic Pain Disorder

Pain with no adequate physical findings. It is not intentionally produced and not due to another psychiatric disorder (e.g. anxiety). It is inconsistent with anatomical distribution of the nervous system.

5- Psychological Factors Affecting Other Medical Conditions and Factitious Disorder

This disorder and factitious disorder are placed among the somatic symptom and related disorders because somatic symptoms are predominant in both disorders, and both are most often encountered in medical settings.

1- Somatic Symptom Disorder

Features: Multiple somatic symptoms (affecting multiple organ system) that cannot be explained adequately based on physical examination and laboratory investigations. The symptoms are not intentionally produced. The disorder is chronic . It is a associated with excessive medical help-seeking behavior. It leads to significant distress and functional impairment (social, occupational…). **Epidemiology**: Women > men 5 – 10 : 1. The lifetime prevalence in the general population is about 2%. More common in patients who bottle up their emotions and are less assertive. **Etiology:** Faulty perception and assessment of somato-sensory inputs due to characteristic attention impairment. Displacement of unpleasant emotions into a physical symptom. Alleviation of guilt through suffering. To obtain attention or sympathy. **DDx**: 1.Medical diseases (e.g. SLE, endocrinopathies, chronic infections). 2.Depression (multiple somatic complaints are associated with low mood and / or loss of interest). 3.Anxiety (many physical manifestations of anxiety e.g. headache, low back pain are accompanied with excessive worries and apprehension). 4.Hypochondriasis (the emphasis is on over-concern with a serious disease). 5.Psychogenic pain disorder (limited to one or two pain symptoms). Course and Prognosis: Chronic fluctuating course with risk of multiple unnecessary operations and possible complications. **Management:** The number of medical staff involved is better limited (a single identified physician as the primary care taker) because opportunity of the patient to express somatic complaints increases when more than one physician is involved. Arrange brief regularly scheduled appointments, e.g. every month. Repeat physical examination. Avoid additional diagnostic procedures. Shift the patient's awareness to psychological factors, and support her/him. Minimize the use of psychotropic drugs (patients tend to use drugs unreliably and erratically). Encourage graded return to normal activities. Antidepressants are useful when secondary depression develops.

2- Illness Anxiety Disorder (Hypochondriasis)

Features: Intense prolonged over-concern and preoccupation with physical health and/or excessive worry about having a serious physical disease (e.g. cancer, organ failure, AIDS, etc). The preoccupation persists in spite of medical reassurance. It is not delusional in intensity. It causes social or occupational dysfunctioning. Associated Features:
Doctor – shopping and deterioration in doctor-patient relationships, with frustration and anger on both sides.
The patient often believes that he is not getting a proper medical care and may resist referral to psychiatry. Physical complications may result from repeated diagnostic procedures. Family and social relationships may become disturbed because the patient expects special consideration. Associated Psychiatric Disorders: major depression, dysthymic disorder, generalized anxiety disorder or adjustment disorders. Most of such patients have obsessional and anxiety personality traits. **Epidemiology**: Age: it can begin at any age. However, onset is thought to be most common between 25 – 45 years. It is thought to be more common in men, and those closely associated with the disease (e.g. relatives of a patient with cancer). The true prevalence is uncertain, but it is common amongst patients attending general medical clinics. **Etiology**: No specific cause has been detected; however, there are some etiological theories: 1.The patient amplifies his normal somatic sensations due to unrealistic interpretation of physical complaints, and misattributes pathological meaning (e.g., minor usual muscular chest pain is interpreted as a sign of cardiac disease). Most of such patients have obsessional and anxiety personality traits. **DDx**: 1. Physical diseases (e.g. endocrinopathy). 2.Somatization disorder (the focus is on the symptoms and not on the over-concern with a disease). 3.Underlying other psychiatric disorders (depression – anxiety). **Course and Prognosis**: Usually chronic course with waxing and waning symptoms. Complete recovery occurs in some cases specially if there is underlying depressed or anxious mood. Presence of secondary gain (e.g. sick role) and personality problems are unfavorable prognostic factors. **Management**: 1. Exclude a possible organic pathology. 2. Search for and treat any underlying depression or anxiety. (Hypochondriasis often improves when these conditions are treated; SSRIs can give good results). A cognitive-educational approach: provide a more realistic interpretation of complaints (e.g. hyperarousal of the autonomic nervous system associated with exaggeration and misinterpretation of the consequences) explain the role of psychological factors in symptoms origin and fluctuation.

youtube.com/watch?v=0EnDW9ljO6U

3- Functional Neurological Symptom Disorder (Conversion Disorder)

Symptoms are related to the neurological system. **Sensory:** paraesthesia/partial blindness/deafness/...
Motor: paralysis/paresis/aphonia/... **Pseudoseizures and fainting**: Pseudoseizures usually lack a number of features of the true epileptic seizures e.g. aura, cyanosis, physical consequences of seizure (tongue bite, trauma, incontinence) and do not occur in sleep. EEG findings are normal. Prolactin level usually increases within 3 hours of a true seizure but not a pseudoseizure. Patient may be unconcerned about his symptoms (denial of affect) this is called “La belle indifference” or may also present in a dramatic or histrionic fashion. **Primary gain:** the reduction of inner tension and intrapsychic conflict after developing the physical disability through conversion. **Secondary gain:** the advantage that the patient gains, e.g. avoiding unpleasant duties. Conversion disorder occurs mainly in young females. It is more common among little educated persons, those with low intelligence and in low socioeconomic groups. Common associated disorders include anxiety and depressive disorders. **DDx:** 1.Neurological diseases e.g. multiple sclerosis, stroke, optic neuritis, etc. (about 30 % of patients followed up later were discovered to have neurologic diseases). 2.Acute dystonic reaction (a side effect of antipsychotics). 3. Factitious disorders (Munchausen's syndrome: intentionally produced symptoms and sign to assume the sick role without external incentives. 4.Malingering: faked symptoms motivated by an external incentive e.g. to evade the police. Patient stops the symptoms when they are no longer useful. **Course**: symptoms usually remit in a short time (hours, days).Recurrence is common. **Treatment**: Sympathetic approach with reassurance that the condition is a reaction to stress and will resolve overtime. This helps the patient let go of symptoms without confrontation. Avoid confrontation. Abreaction (drug-aided interview): using amytal or diazepam with suggestion can result in a dramatic resolution. Stressful events in the patient’s life should be evaluated and appropriate intervention made: individual, marital or family therapy. Underlying psychiatric illness, such as depression, should be recognized and properly treated. **Prognosis**: Good prognosis is associated with acute onset, an obvious stressful precipitant, good premorbid personality, above average intelligence, a short interval between onset and treatment.

Comparison between conversion, factitious, and malingering disorders.

Diagnosis / Distinction	Conversion Disorder	Factitious Disorders	Malingering
Intentions	No	Yes	Yes
Goal & motivation	Subconscious Secondary gain	Partially aware. To assume the sick role	Fully aware. Motivated by external incentives (e.g. to evade the police, avoid work, or secure financial compensation). They always have some apparent end of their behavior.
Suggestibility	Yes	No	No
Course	Short & Recurrent	Intermittent or chronic	Varies depending on the goal.

Dealing with physically-ill patients who have difficult personalities (see details of personality disorders later):

	Personality	Traits /Attitude	Patient concern/worries	Approach
A	**1.Paranoid**	Mistrustful, guarded and hypervigilant.	Exploitation and betrayal.	Acknowledge complaints without arguing and honestly explain medical illness.
	2.Schizoid	Enjoys to be alone	Violations of privacy	Accept his unsociability and need for privacy. Reduce the patient's isolation as tolerated
	3.Schizotypal	Odd feelings, perception, &beliefs.	Exploration of oddities.	Empathize with the patient's oddities without confrontation.
B	**1.Antisocial**	Dishonest, deceptive, and exploiting.	Exploitation and loss of self-esteem	Verify symptoms & discover malingering. Control wish to punish patient. Explain that deception results in patient poor care.
	2.Histrionic	Excessively seeking attention and admiration.	Loss of love.	Set limits and avoid being too warm. Use logic thinking to counteract an emotional style of relationship.
	3.Borderline	Fluctuating emotions, extreme views, impulsivity, self-harm, and unstable relationships.	Abandonment & loss of support.	Empathize and set limits. Use logic thinking to counteract an emotional style of relationship.
	4.Narcissistic	Sense of superiority and priority	Devaluation and loss of prestige, or self-esteem	Do not confront self-inflation. Do not devalue the patient. If the patient devalues you, you may offer a referral as an option, not as punishment.
C	**1.Avoidant**	Shy, oversensitive to criticism, embarrassment and humiliation.	Exploration of low self-esteem, inadequacy shame, and rejection.	Empathize, support self-esteem, and encourage assertiveness.
	2.Dependent	Over-dependant seeks constant support and reassurance.	Independence	Explore why independence is so frightening and encourage independence and assertiveness.
	3.Obsessive-compulsive	Perfection seeker, over-meticulous, rigid, and self-blaming.	Imperfection and guilt.	Tolerate the patient's critical judgments and unnecessary details. Beware of his controlling behavior.

- Test 3

1. A 17- year-old girl has several unpredictable episodes of distortion of sensations and perception associated with memory disturbances and fear followed by periods of confusion. In between the episodes she is completely normal. The most likely diagnosis is:
    a. Schizophrenia.
    b. Somatic symptom disorder.
    c. Complex partial seizures.
    d. Conversion disorder.

2. An 18-year-old female, brought to the emergency department by her parents with a sudden episode of right hand weakness and muteness the night before exam. Her clinical assessment revealed no real neurological deficit. The most important management step is

    a. Intramuscular injection of haloperidol.
    b. Drug-aided interview with suggestions.
    c. Arrange brief regular appointments.
    d. Confront her that she is malingering.

3. A 30-year-old woman came to primary care clinic asking for investigations because she has shoulder pain, headache, abdominal distention, numbness in her left arm, nausea, and discomfort in her pelvis for 2 years. The following is the most important first management step:

    a. Explore psychosocial stresses.
    b. Hospitalize her for close observation.
    c. Investigate her for Tuberculosis.
    d. Request a personality test.

4. A 42-year-old man has repeated chest pain, extreme worries about his heart, and afraid of sustaining ischemic heart disease. His treating physician reassured him "nothing wrong in your heart". His preoccupation persists in spite of medical reassurance. The next management step would be:

    a. Confrontation.
    b. Excluding anxiety.
    c. Amitriptyline.
    d. Repeated reassurance.

5. A 48-year-old woman was commenced on interferon treatment for hepatitis C infection. She then developed depressive features. The appropriate medication would be:

    a. Imipramine.
    b. Alprazolam.
    c. Sertraline.
    d. Methadone.

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Answers:

1	2	3	4	5
C	B	A	B	C

4

Substance Abuse

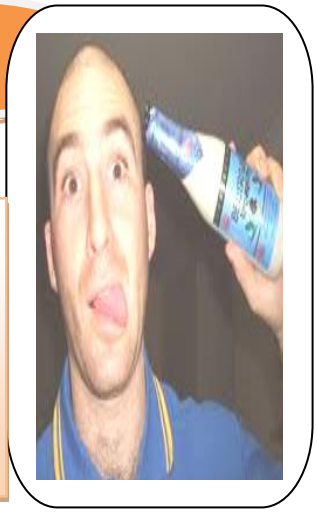
CNS Suppressants:
Alcohol – Sedatives – Inhalants – Opioids**.**

CNS Stimulants:
Amphetamine – Cocaine

Cannabis

Alcohol Abuse

A 43-year-old admitted into the hospital for an elective minor surgery. Five hours post –surgery He showed high blood pressure (180/110), a sharp increase in the pulse rate to 120, and a **gross tremor** to both hands. An interview with the wife documented **history of alcohol abuse**.



Factors associated with high risk of alcohol abuse

- **Vulnerable personality:** impulsive, gregarious, less conforming, isolated or avoidant persons.
- **Vulnerable occupation:** senior businessmen, journalists, doctors.
- **Psychosocial stresses:** social isolation, financial, occupational or academic difficulties, and marital conflicts.
- **Emotional problems:** anxiety, chronic insomnia, depression.

Alcohol abuse may mean any one of the following specific terms:
Excessive consumption: harmful use.
Problem drinking: drinking that has caused disability, but not dependence.
Alcohol dependence: This usually denotes alcoholism.
Alcohol-related disability: physical, mental and social.

Alcohol is the major substance of abuse all over the world. Mixed abused of alcohol and other substances is very common. Recreational alcohol drinking gradually grades into problem drinking and dependence. Most alcohol abusers go unrecognized by clinicians until their physical health and psychosocial life have been significantly harmed; therefore, early recognition is important. Many people go through prolonged periods (average 15 – 20 years) of gradual dependence on alcohol before clinical symptoms or signs are evident. Alcohol depresses the central nervous system. Clinically, it may appear to be a stimulant because of early disinhibition due to suppression of inhibitory control mechanisms. Alcohol drinking may occur in the late teens but dependence is most common in those aged 40 – 55 years.

Terminology in psychoactive substance abuse:

Abuse: Self-administration of any substance in a culturally disapproved manner that causes adverse consequences.
Intoxication: The transient effects (physical and psychological) due to recent substance ingestion, which disappear when the substance is eliminated.
Withdrawal: A group of symptoms and signs occurring when a drug is withdrawn or reduced in amount.
Tolerance: The state in which the same amount of a drug produces a decreased effect, so that increasingly larger doses must be administered to obtain the effects observed with the original use.
Dependence: The physiological state of neuro-adaptation produced by repeated administration of a drug, necessitating continued administration to prevent the appearance of the withdrawal state.
Addiction: A nonscientific term that implies dependence and associated deterioration of physical and mental health as wel as a high tendency to relapse after discontinuation.

Detecting patients with alcohol problems :
It is important to recognize alcohol problems as soon as possible, because treatment is more likely to be successful in early stages of alcohol abuse. Clinician should have high index of suspicion of alcohol abuse in the following circumstances: **1. High-risk groups** (vide supra). **2. Psychiatric conditions** associated with alcohol abuse: e.g., memory impairment, sexual dysfunction, and morbid jealousy. **3. Medical conditions**: GI (nausea, vomiting, gastritis, peptic ulcer, or liver disease) or CNS (headache, sweating, flushing, blackouts, peripheral neuropathy, fits, or repeated falls). **4. Social conditions**: poor work records, interpersonal problems (with parents, spouse or children), financial stresses, isolated life style. **5**. Legal conditions: e.g. reckless driving.

The stages of alcohol dependence;

Stage	Comment
1st; The early stage	The drinker has not lost control of his health. Relatives and friends do not find anything unusual. He drinks for stress relief or mood elevation.
2nd ; Stage of excessive consumption	He drinks so much and for no reasons, loses control of physical and mental capacity, and sometime may become a nuisance. Relatives and friends become aware that he has a problem with alcohol and he still believes that he can quit alcohol at any time.
3rd; Stage of complications	The chronic stage of alcoholism; physic and mental complications. Trails to stop drinking with repeated failure.

CLINICAL PRESENTATIONS

- **Alcohol intoxication:**

Early intoxication includes a sense of well-being, liveliness and a smell of alcohol on the breath, grading into emotional lability, irritability, and incoordination, which grades into apathy, ataxia, and slurred speech. Heavy intoxication (blood alcohol level above 300 mg/ml) can lead to alcoholic coma. Alcohol acute intoxication may mimic many psychiatric conditions (panic attacks, depression, and acute psychosis with delusions +/- hallucinations).

Blood Alcohol levels and Impairment;

Level	Impairment
20 - < 30 mg/dL	Slowed thinking and motor performance.
30 - < 80 mg/dL	Observable cognitive and motor impairment.
80 - < 200 mg/dL	Deterioration in cognition with impaired judgment and mood lability.
200 - < 300 mg/dL	Marked slurring of speech, ataxia , nystagmus, and alcoholic blackouts.
>300 mg/dL	Impaired autonomic nervous system functions, disturbed vital signs, coma and possible death.

When you suspect alcohol abuse, ask the patient clearly about alcohol ingestion and determine the pattern of abuse. Carry out a physical examination for alcohol – related medical complications.

Laboratory test: abnormal high values of gamma glutamyl transpeptidase (GGT) and mean corpuscular volume (MCV) point to the possibility of alcohol abuse.

Complications of Chronic Alcohol Abuse:

Medical	Psychiatric	Social
Neurological Cerebellar degeneration Seizures / head trauma Peripheral neuropathy Optic nerve atrophy **Alimentary** Gastritis, peptic ulcer. Pancreatitis/hepatitis / cirrhosis. Tumors (esophagus, liver..) **Others:** Cardiomyopathy. Anemia / Obesity. Impotence / Gynecomastia.	• amnestic disorder • delirium • dementia • psychosis • depression • reduced sexual desire • insomnia • personality deterioration • increase risk of suicide • morbid jealousy	• social isolation • job loss • marital conflicts • family problems • legal troubles • social stigma • others

Treating Alcohol Intoxicated Patient

The conscious patient:

- Observation, with protective and supportive approach.
- In case of agitation, hyperactivity or risk of violence: restrain the patient and give antipsychotic drugs (e.g. haloperidol 5 – 10 mg im)
- Avoid sedatives because they may potentiate depressant effects of alcohol on CNS.
- Wait for the alcohol to be metabolized.

The unconscious patient:

- Hospitalization is required: protection of the airways, vital signs monitoring, prevention of further loss of body heat, correction of hypovolemia, and forced diuresis with maximal alkalinization of the urine. In extreme situation, hemodialysis is necessary.

Detoxification (Planned Alcohol Withdrawal)

People with alcohol-related disorders usually come to treatment because of fear that continued drinking would have a fatal outcome, or because of pressure from a spouse or an employer. A sudden cessation of drinking may cause severe withdrawal state with serious complications including seizures, delirium tremens or coma. Therefore, detoxification should be carried out under close **medical** supervision.

Long-acting benzodiazepines (e.g. diazepam or chlordiazepoxide) are generally prescribed to reduce withdrawal symptoms because of 1. lower risk of abuse compared to short-acting benzodiazepines & the smooth reduction of the drug levels in the blood (a smooth course of withdrawal).

Benzodiazepines are then gradually discontinued over 2-3 weeks; otherwise, the patient may become dependent on them.

- Vitamin supplements, especially vitamin B1 (thiamine).
- Monitoring of vital signs, consciousness and orientation.
- Good hydration and glucose intake.
- Anticonvulsants may be used to control seizures.

Maintaining Abstinence:

Disulfiram (anta-abuse) helps those whose drinking pattern is impulsive and who are highly motivated to stop drinking. It blocks the oxidation of alcohol so that acetaldehyde accumulates with consequent unpleasant flushing of the face, choking sensations, headache, nausea, vomiting, tachycardia and anxiety. There is a risk of cardiovascular complications. Therefore, the drug should be used in specialist practice and should not be within 12 hours after the last ingestion of alcohol.

Citrated calcium carbimide is another drug used in maintaining abstinence; it induces a milder reaction with alcohol, and has fewer side effects.

Psychological treatment:

To explore the reasons for drinking, alternative ways are worked out. For instance, instead of using alcohol in social situations to reduced anxiety, learn anxiety management and assertiveness techniques. Provision of information about the hazards of alcohol.

Group therapy: about 7-12 patients and a staff member in a specialist unit attend regular meetings. It provides an opportunity for frank feedback from other members of the group concerning the problems that the patient faces and to work out better ways of coping with their problems.

Alcohol withdrawal:

Occurs in the dependent state, in those who have been drinking heavily for years and who have a high intake of alcohol **(e.g. when patient is admitted into hospital and has no access to alcohol)**. The symptoms may begin after six hours of cessation or reduction of alcohol and peak by 48 hours. They follow a drop in blood concentration; characteristically appear on waking from sleep, after the fall in concentration during sleep. The symptoms subside over the course of 5 - 7 days. Epileptic generalized tonic-clonic seizures may develop within 12 - 48 hours after cessation of alcohol intake. Delirium tremens may develop after about 48 hours. The minimal quantity and frequency of alcohol consumption that may lead to physical dependence and withdrawal is not known. Severe withdrawal is more likely with the higher the levels of chronic alcohol consumption (e.g. 150 grams of alcohol per day), but individuals with lower levels can experience severe withdrawal and withdrawal complications. The severity of withdrawal is only moderately predicted by amounts of alcohol consumed. Duration of heavy alcohol use for 6 years or longer increases the odds of developing withdrawal symptoms 15 times.

The stages of alcohol withdrawal syndrome;

Stage	Onset	Features
I	6 - 8 hours	**Autonomic hyperactivity**, tremor, agitation, diaphoresis, anxiety, tachycardia, , nausea, vomiting, anorexia, headache, insomnia, and craving for alcohol.
II	10-30 hours	**Hallucinations** (auditory or visual, tactile, olfactory or mixed), illusions, disordered perception, + autonomic hyperactivity of stage 1.
III	12 - 48 hours	**Grand mal seizures**; 3-4% of untreated patients progress to stage 3; more than 50% have multiple seizures; >30% have Delirium Tremens if untreated.
IV	≥ 2-3 days	**Delirium tremens** (DTs), see below.

Delirium Tremens (DTs)

Definition & Criteria: it is a ***severe form of alcohol withdrawal*** starting 2 – 3 days after last alcohol intake; it may be precipitated by infections, and characterized by: **delirium, gross tremor (tremens),** and **other features** : electrolyte disturbances & dehydration, autonomic disturbances (fever, dilated pupils & unstable BP, pulse and respiratory rates), and insomnia.

Course: It usually peaks on 3rd or 4th day, lasts for 3 – 5 days, worsens at night, and followed by a period of prolonged deep sleep, from which the person awakes with no symptoms and has amnesia for the period of delirium.

Complications include: ***Violence*** (may lead to homicide or suicide), ***Seizures*** *(may lead to aspiration, chest infection, & coma*), and **Death** (it can be due to: suicide / cardiac arrhythmias/ electrolyte imbalance/aspiration/ chest infection/ volume depletion . Mortality rate: 5 -15%.

youtube.com/watch?v=EosAtSpu1Pw

Screening for alcohol dependence;
CAGE questionnaire. Ask the patient: "Have you ever;
1.wanted to **c**ut down on your drinking?
2. felt **a**nnoyed by criticism of your drinking?
3. felt **g**uilty about drinking?
4. taken a drink as an "**e**ye opener" (to prevent the shakes)?"
≥ 2 "yes" answers are considered a positive screen.
One "yes" answer should arouse suspicion of abuse.

Cut Annoyed Guilty Eyes

Treatment:

1. It should be in **an ICU or a medical word** because it is a serious **medical emergency.**
2. Avoid antipsychotics (because they lower seizure threshold).
3. Guard against seizures; benzodiazepines (e.g. diazepam) +/- magnesium sulfate & an anticonvulsant Rx .
4. Rehydration is a vital step.
5. Thiamine (B1) supplement is essential for glucose metabolism (B1 is usually low in DTs patients).
6. Keep the patient in a quiet, well lit-room; avoid over and under stimulation. Frequently reorient, reassure and explain procedures clearly to the patient.

Abuse of Anxiolytics, Sedatives & Hypnotics.

This class of substances includes all controlled antianxiety and sleeping medications:

- Benzodiazepines (e.g. clonazepam, lorazepam)
- Benzodiazepine - like drugs (e.g. zolpidem, zopiclone)

Clonazepam (Rivotril), alprazolam (Xanax) and flunitrazepam (Rohypnol) have become drugs of abuse.

These substances are brain depressants. Like alcohol, they can produce very significant levels of physiological dependence, marked by both tolerance and withdrawal.

- **Intoxication**: Similar to alcohol intoxication, features include:
  - slurred speech -incoordination- unsteady gait- nystagmus / ataxia.
  - impaired attention or memory- stupor or coma.

Abuse of sedative and hypnotic drugs causes clinically significant maladaptive psychological or behavioral changes, e.g. disinhibited behavior.

- **Withdrawal:** Similar to alcohol withdrawal, features include:
  - Autonomic hyperactivity (e.g. sweating, tachycardia).
  - Nausea, vomiting, anorexia.
  - Insomnia.
  - Anxiety / agitation.
  - Perceptual disturbances (e.g. illusions…).
  - Seizures.
  - Delirium.

The timing and severity of the withdrawal syndrome differ depending on the specific substances and its pharmacokinetics and pharmacodynamics. For example, withdrawal from substances with long-acting metabolites (e.g. diazepam) may not begin for 24 - 48 hours or longer; whereas withdrawal from substances with short-acting substances that are rapidly absorbed and have no active metabolites (e.g. triazolam) can begin within 4 - 6 hours after the substance is stopped. Withdrawal can be life-threatening which often requires hospitalization.

These substances are often taken with other brain depressants, like alcohol, which can produce additive serious effects (e.g. respiratory depression). Alcohol and all drugs of this class are cross-tolerant and cross-dependant, i.e., one drug is able to suppress the manifestations of physical dependence produced by another drug and to maintain the physical dependant state.

Despite the risk of dependence, benzodiazepines have less abuse potential than other drugs of this class, a higher therapeutic index, and a wide range of therapeutic indications. Therefore, **a patient should not be deprived of a benzodiazepine drug when it is clinically indicated** (e.g. anxiety, insomnia, akathisia).

Abuse of Inhalants (Volatile Solvents) التشفيط

Adeeb is a 16-year-old boy lives with his divorced mother, presented with slurred speech, facial rashes, incoordination and nausea.

Inhalants are volatile organic substances (most are aromatic hydrocarbons) that can be inhaled for psychotropic effects. The active compounds in these inhalants are usually **acetone, benzene or toluene.**

The types of solvents, cleaners, and glues are numerous and include: gasoline, lighter fluids, spray paints, cleaning fluids, glues, typewriter correction fluids, & fingernail polish removers.

These agents generally act as brain depressants (similar to alcohol and sedative hypnotics in their effects). Use of inhalants occurs mainly among adolescents in lower socioeconomic groups, usually as occasional experimentation. This is often a group activity. Inhalants are inexpensive, easily available and legal substances. These factors contribute to the high use of inhalants among people who are poor. People often use inhalants with a partially closed container (e.g. a can), a plastic bag, a tube or an inhalant- soaked cloth through which a user can sniff the volatile substance through the nose, or huff and puff it through the mouth. Therefore, a recent abuse of inhalants can be identified by unusual breath or odor, rashes around the nose and the mouth or the residue on the face, hands or clothing. Other less specific identifying features include irritation of the patient's nose, mouth, eyes and throat. Inhalants are rapidly absorbed through the lungs and delivered, through the blood, to the brain. Their effects usually appear within 5 – 10 minutes and may last for several hours.

Intoxication: symptoms of mild intoxication are similar to intoxication with other brain suppressants (e.g. alcohol).
In small doses, these agents produce the attracting features: euphoria, excitement, pleasant floating sensations, and disinhibition.
High doses can cause: disturbed consciousness, perceptual disturbances, impulsiveness, assultiveness, impaired judgment, sedation, slurred speech, nystagmus, ataxia, incoordination, nausea, and vomiting.

Complications:

Physical: irreversible multi-organ damages (brain, lungs, liver, kidneys, muscles, peripheral nerves and bone marrow).

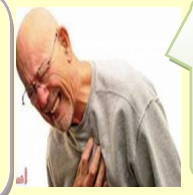
Psychological: depressions, conduct or personality disorders…etc.

Social: broken or abusive family life.

Death may occur during intoxication because of: respiratory depression, asphyxiation, aspiration of vomitus, cardiac arrhythmia or serious injury.

Treatment: a full range of biopsychosocial assessment and treatment is needed including physical and psychiatric rehabilitation. There is no specific drug treatment for inhalant abuse, but psychiatric complications (e.g. psychosis, depression)may require drug treatment. Teenagers should receive education and counseling about the general topic of substance abuse.

Abuse of Opioids

A 53-year-old man was referred for psychiatric consultation by his physician who discovered him abusing large quantities of a codeine-containing medicine. He had come into the hospital for a severe abdominal pain which is relieved only by methadone or morphine (he claimed).His condition fluctuates during the day.

Opioids include several narcotic substances: **(opium, heroin, morphine, codeine, pethidine, methadone).**

The pharmacological effects of opiates are mediated through interaction with endogenous opioids (enkephalins, endorphins and dynorphins) and opiate receptors (mu, kappa and delta) which are involved in many mental functions: pain perception (analgesics), mood (feeling of pleasure).The medical use of opioids is mainly for their **powerful analgesic effects.** They are abused for **their powerful euphoriant effects** (especially when taken intravenously).

Opioid Intoxication

Initial Phase: euphoria, analgesia, and relaxation.
Then: apathy, dysphoria, drowsiness, slurred speech, psychomotor retardation (or agitation), disturbed consciousness, impairment in attention, memory, and judgment. Sexual desire diminishes with repeated use.

Opioids effects on the pupils ; (Important in the clinical assessment of the degree of opioids intoxication).

Pupillary constriction.

In severe overdose: Pupillary dilatation.

Treatment; in ICU: mointor vital signs, give antidote (**naloxone**) to normalize respiration and to restore consciousness. Open airway - oxygen - IV fluids.

youtube.com/watch?v=5g9-55XxTlU

Opioid Withdrawal

Features:

1. Rhinorrhea (runny nose).
2. Lacrimation.

3. Pupillary dilation.
4. Yawning.
5. Insomnia.

6. Fever / sweating/piloerection.
7. Muscle/joint aches.
8. Nausea or vomiting.

9. Diarrhea.
10. Dysphoric mood.
11. Craving (desperate searching for opioids).

Treatment:
Short-term; painkillers, sedatives, & observation. Clonidine can be used to control the release phenomena (sympathetic overactivity, nausea, vomiting and diarrhea).
Long-term; ***methadone harm reduction strategies***: methadone is used as a patch for heroin addicts. It provides a slow, steady delivery that replaces the sharp highs and drops. Thus, it allows addicts to stabilize their cravings that are hard to resist. It can also be taken as syrup once a day. Frequent Counseling.

youtube.com/watch?v=NaMgdlUcsko

Tolerance develops rapidly (especially in IV usage) leading to **rapid dependence and withdrawal** (6 hours after the last dose, reach a peak after 36 - 48 hours, and then wane). However, untreated withdrawal results in **no serious** medical sequence and rarely threatens the life of someone in a reasonable physical health, though they cause great distress.

Tolerance also diminishes rapidly and this can result in **immediate death** (an accidental overdose during time of IV self-inejction because of ***immediate serious respiratory depression***).This occurs when a previously tolerated high dose is resumed after a drug-free interval (e.g. after a stay in hospital or prison).
Complications of IV Usage: AIDS, hepatitis, endocarditis, septicemia.

CNS Stimulants : amphetamine [captagon], cocaine [crack] .

Rakan is a 20-year-old male brought to Emergency Department by police who arrested him because of reckless driving (drifting with high speed) and violent behavior. He looked over-suspicious, agitated, and over-talkative.

Main features:

- hypervigilance/Hyperactivity / agitation/ - Suspiciousness >>>>>>> paranoid delusion.
- Overconfidence >>>>>> grandiosity.
– Aggression & violence.
-Insomnia.
-Euphoria or irritable mood.
-Hallucinations (visual more than auditory).
-Confusion and incoherence.

Treatment: Inpatient setting.

Symptomatic use of an antipsychotic medication e.g. olanzapine 10-20mg. For 4- 6 months). Upon abstinence some patients develop headache and depression, and may require antidepressants (e.g. paroxetine 20 mg/ day or 6 months). Psychotherapeutic methods (individual, family, and group psychotherapy) are usually necessary to achieve lasting abstinence.

However , it can be indistinguishable from functional psychosis (e.g. brief psychotic disorder, schizophreniform), and schizophrenia) and only the resolution of the symptoms in a few days or a positive finding in a urine drug screen test eventually reveals the diagnosis.

Cannabis (marijuana/hash/ hashish)

Bandar is a 32-year-old male brought to outpatient clinic by his concerned wife because of recurrent brief periods of being over-suspicious, euphoric, and talkative. He admitted abusing cannabis in the week-ends.

Main features:

- Euphoria/heightened perception/talkativeness/sensation of slowed time & disinihibition.
- Physical effects :
  Red conjunctiva / dry mouth / mild tachycardia/ increased appetite respiratory tract irritation & impaired motor coordination.
- Impaired cognitive functions & judgment.
- Anxiety +/- panic attacks with depersonalization and derealization (in high doses).
- Brief psychosis (transient paranoid ideation is more common than florid sustained psychosis).

Features may be correlated with preexisting personality traits (e.g. borderline / paranoid/…).

Treatment: Usually outpatient setting.

An antipsychotic medication (e.g. risperidone 3 mg /day) for 6 months.

Psychotherapeutic methods (individual, family, and group psychotherapy) are usually necessary to achieve lasting abstinence.

Cannabis may trigger anxiety / panic attacks & can induce delirium. Following discontinuation of cannabis, some patients may develop depressive features. Chronic use of cannabis can lead to a state of apathy and amotivation ***(amotivation syndrome)*** but this may be more a reflection of patient's personality structure than an effect of cannabis.

- Test 4

1. A 41-year-old businessman came to the emergency department complaining of insomnia for 3 days after he ran short of his sleeping pills. He was asking for a specific drug manufactured by ROCHE Company. He knows that each tablet is 2 mg. He said he uses 5 tablets each night to sleep. The most likely problem of this patient is:
    a. Heroin abuse.
    b. Benzodiazepines abuse.
    c. Methadone abuse.
    d. Abuse of painkillers.

2. A 33-year-old single man was caught by police officers and put in prison because he was driving his car recklessly with high speed at 3am in the highway. Next day he started to show excessive lacrimation, runny nose, repeated vomiting, and abdominal cramps. However, his consciousness was intact. The most likely problem of this patient is:
    a. Cannabis abuse.
    b. Methadone intoxication.
    c. Abuse of naloxone.
    d. Opioid withdrawal.

3. A 32-year-old man became increasingly irritable, insomniac, hypervigilant for the past 4 weeks with unpredictable mood and accusing his wife with extramarital sexual relationships. The most likely diagnosis is:

    a. Heroin abuse.
    b. Generalized anxiety disorder.
    c. Amphetamine abuse.
    d. Paranoid Schizophrenia.

4. A 43-year-old man has episodic behavioral disturbances including; euphoria, talkativeness, and disinihibition. His eyes look red most of the time. The most likely diagnosis is:

    a. Alcohol abuse.
    b. Cannabis abuse.
    c. Amphetamine abuse.
    d. Cocaine abuse.

5. A 16-year-old boy presented with slurred speech, incoordination and nausea. Physical examination revealed facial rashes around his mouth and nose. When asked about substance abuse his reply was affirmative. The most likely substance is:
    a. Cannabis.
    b. Alcohol.
    c. Volatile substance.
    d. Morphine.

Answers:

1	2	3	4	5
B	D	C	B	C

Short-answer questions

Case 1: A 47-year-old male hospitalized 2 days ago for an elective minor surgery. seven hours post-surgery the nursing staff noted fluctuation of his consciousness, disturbance of behavior, gross tremor, and unstable vital signs. An interview with his wife revealed that he had 2 similar episodes during last Ramadan.

Q1. What is the most likely substance this person had been abusing?
Q2. Mention two serious complications of his current condition.
Q3. Mention two management steps.

A1. Alcohol.
A2. Any 2 of:
1- Violence (may lead to homicide or suicide).
2- Seizures (may lead to aspiration, chest infection, & coma).
3- Death (it can be due to: suicide / cardiac arrhythmias/ electrolyte imbalance/aspiration/ chest infection/ volume depletion.

A3. Any 2 of:
1. Guard against seizures; benzodiazepines (e.g. diazepam) +/- magnesium sulfate & an anticonvulsant Rx**.**
2. Rehydration is a vital step**.**
3. Thiamine (B1) supplement is essential for glucose metabolism (B1 is usually low in DTs patients).
4. Keep the patient in a quiet, well lit-room; avoid over and under stimulation. Frequently reorient, reassure and explain procedures clearly to the patient

Case 2:
A 33-year-old single man admitted two days ago in the medical ward with swollen tender left leg. Today he is complaining of severe abdominal, muscular and joint pain all over his body, with vomiting and diarrhea. He kept demanding for pethidine or morphine injections. His treating consultant referred him for psychiatric assessment.

Q –1 What is your most likely psychiatric diagnosis?
Q – 2 What eye sign you may find in this patient to support you diagnosis?
Q – 3 Mention two significant medical management steps?

A1 - Withdrawal of opioids (heroin).
A2 - Pupillary dilatation.
A 3- Any of: 1- pain-killer - 2- anxiolytics 3 – clonidine 4- methadone harm reduction strategies.

Case 3 : A 28-year-old male brought to outpatient clinic by his brother because of transient paranoid ideation with euphoric mood and talkativeness. These features increase over the weekends.

Q1. What are the most likely 2 substances this person has been abusing?
Q2. What eye sign you may find in this patient ? which substance it goes with?
Q3. Mention two significant medical management steps?

A1. Amphetamine - Cannabis.
A2. Red conjunctiva >>> cannabis.
A3. First: antipsychotic medication (e.g. olanzapine 10-20mg).
Second: psychotherapy to achieve lasting abstinence.

5

Psychotic Disorders

- Features.
- DDx
- Schizophrenia.
- Other Psychotic disorders

Aggressive Patient

Antipsychotics

ECT

Ahmed is a 28-year-old single man was brought by his father to Emergency Department with 7 months progressive history of: 1. Talking to himself with giggling and grimacing. 2. Staring at the roof of his room. 3.Over-suspiciousness (e.g. his family may poison his food). & 4.Agitation. *Past history:* Several psychiatric hospitalizations because of disturbed behavior and perception (hearing non-existent distressing voices commenting on his action).

Fahad, what do you know about **psychotic**

Psychotic Disorders are mental illnesses characterized by gross impairment in reality testing and personal functioning as evidenced by disturbances in thinking (delusions), perception (hallucinations), or behavior (e.g. violence). Examples: schizophrenia, severe mood disorders, delusional disorders.

What are the ***clinical features*** of psychotic disorders?

Defects in	Examples
Behavior	Abnormal movements/posture/smile/laughter
Perception	Hallucinations
Thinking	Delusions/concrete thinking/loose association
Insight	Denial of mental illness
Judgment	Reckless/dangerous decisions

Not all mental functions are defected in all patients.

Great! that means you have reviewed (signs & symptoms). Pay more attention to ***delusions*** and ***hallucinations*** (the main signs of psychosis).

Fahad, tell us about **DDx** of psychotic disorders

Well, there are organic & functional causes of psychosis. I can simplify them in the table below:

Psychosis due to medical/organic causes:

Delirium/dementia/ CNS infections / frontal lobe pathology / temporal lobe epilepsy.
Medications (e.g. steroids, bromocriptine, L-dopa).
Autoimmune D. (e.g. SLE).
Substance-induced psychosis e.g.: stimulants, cannabis, alcohol…e.t.c
Features: like functional psychosis (but hallucinations; visual **>** auditory + cognitive impairment)

Functional psychosis:

1.Brief Psychotic disorder.
2. Schizophreniform disorder.
3. Delusional disorders.
4. Schizophrenia.
5. Schizoaffective

Personality Disorders:

Paranoid, schizoid, schizotypal, and borderline personality disorders may *co-occur* with psychotic disorders.

Brief Psychotic Disorder: an acute and transient psychotic condition that lasts ≥ 1 day but ≤1 month and not induced by an organic cause. Common features include paranoid delusions, hallucinations, emotional volatility, odd behavior, & screaming. It may be triggered by stress (e.g. death of a relative). Remission is full, and the individual returns to the premorbid level of functioning. It occurs among young (20- 40 years) **>** old patients. Comorbidity: personality disorders (most commonly, borderline personality disorders, paranoid, schizoid, schizotypal). Patients have a biological or psychological (inadequate coping mechanisms)vulnerability for the development of psychotic symptoms. **DDX**: substance-induced psychosis, manic episode, and PTSD (see later). **Management**: brief hospitalization for protection, evaluation, & antipsychotic treatment; e.g. haloperidol 10 mg or olanzapine 10 mg). ECT for postpartum psychosis. **Prognosis**: varies some patients show no further major psychiatric problems and others progress to mood disorders or schizophrenia.

If the onset is within 4 weeks after delivery, it is called **"Postpartum Psychosis"**. It is uncommon (about 1 in 500 birth). The most common form is affective psychosis (70 %). It begins 2-4 days after delivery. More frequent among primiparous women, those with family history of psychiatric illness and those with previous major psychiatric disorders. The clinical features include disturbed mood, perplexity, excitement, restlessness (or withdrawal), excessive guilt, disturbed thinking and suicidal and infanticidal threats. Schizophrenia-like psychosis occurs in about 25 % of cases who usually remain chronically ill. About 5 % of patients develop delirium. **Treatment:** hospitalization **ECT** (Its rapid effect enables the mother to care for her baby). Drugs: antipsychotics (e.g. risperidone 4 mg).

Schizophreniform Disorder: Similar features to those of brief psychotic disorder but the duration is **>** 1 month & **<** 6 months. **DDX**: manic episode, substance-induced psychosis. **Management**: brief hospitalization for protection, evaluation, & antipsychotic treatment; e.g. risperidone 4mg. for 3- to 6-month course. Patients respond to antipsychotic treatment much more rapidly than patients with schizophrenia. **Prognosis**: recurrence is high as well as progression to schizophrenia.

Delusional Disorders: ≥ 1- month systematized delusion(s) (such as being persecuted, followed, loved at a distance, or deceived by spouse). Patients usually do not have prominent or sustained hallucinations. Patients' moods are consistent with the content of their delusions(a patient with grandiose delusions is euphoric). **Types: Persecutory type:** delusions that the person (or someone to whom the person is close) is being malevolently treated in some way**. Grandiose type:** delusions of inflated worth, power, knowledge, identity, or special relationship to a deity or famous person**. Jealous type:** delusions that the individual's sexual partner is unfaithful**. Erotomanic type:** delusions that another person, usually of higher status, is in love with the individual. **Somatic type:** delusions that the person has some physical defect or general medical condition. **Mixed type:** delusions characteristic of more than one of the above types but no one theme predominates. **Unspecified type**. **DDx**; schizophrenia, schizoaffective, mood disorder, organic psychosis. **Treatment**: in-patient or outpatient, antipsychotics oral or depot (long acting IM injections e.g. clopixol 200 mg / month) if patient is not compliant with oral medications. Insight-oriented, supportive, and cognitive therapies are often effective. **Prognosis**: varies depending on many factors (type o delusion, personality, psychosocial stresses, and treatment).

Affective (Mood) Disorders: Manic episode or major depressive episode with psychosis. Note that in mood disorders: hallucination and delusions are mood – congruent and usually develop after the mood disturbance. The course of mood disorders is fluctuating: (repeated episodes of mood disturbance with normal periods in between) see later; module -4; Mood Disorders.

High mood		mania			
Normal mood					
Low mood				depression	

Schizoaffective Disorder: Concurrent presence of mood disturbance (depressive or manic episodes) and psychotic features (delusions or hallucinations, for at least **2** weeks in the absence of prominent mood symptoms during some phase of the illness).

High mood		mania			
Normal mood			**+ 2 w (delusion or hallucinations)**		
Low mood				depression	

DDx; mood disorders, substance-induced psychosis, delusional disorders, and schizophrenia. **Treatment:** an antipsychotic (e.g. olanzapine 10 mg) for psychotic features, mood stabilizer (e.g. sodium valproate 500 mg twice/day), and when depressed an antidepressant (e.g. fluoxetine 20 mg) can be added**. Prognosis:** it has a better prognosis than schizophrenia and a worse prognosis than mood disorders.

Schizophrenia: ≥ **6** months duration of disturbance (including the prodromal and residual phases). ≥ 1month period of psychotic features with **2** out of **5**: delusions/hallucination/disorganized speech (e.g. incoherence) / or disorganized behavior/ catatonic features or negative features (e.g. flat affect). Significant functional impairment (occupational, social, academic...etc.) Exclusion of other psychotic disorders (see above; the differential diagnosis).

There are no specific limited pathognomonic features for schizophrenia. The best starting point is to study simplified descriptions of two variants; the acute and the chronic presentations of schizophrenia.

Epidemiology: Worldwide lifetime prevalence is about 1 %. Worldwide, 2 million new cases appear each year. Incidence is about 20 per 100,000 per year. The lifetime risk of developing schizophrenia is about 1%. Most common between 15 - 35 years. Paranoid type: later onset than other types. Sex ratio is 1: 1 Median age at onset: Males = 28 years, Females = 32 years.

Acute Schizophrenia	Chronic Schizophrenia
Presence of ***active/positive*** features : • Prominent Delusions (paranoid - bizarre) • Prominent Hallucinations: (3rd or 2nd but with derogatory content) • Disorganized thinking and speech. • Disturbed behavior +/- aggression. • Incongruity between affect thinking and behavior.	Presence of ***negative features*** : • Poor self-care and hygiene. • Lack of initiative and ambition. • Social withdrawal. • Poverty of thought and speech. • Restricted or apathetic affect. • Cognitive deficit. • Loose association >>> Word salad. Delusions and hallucinations become less prominent.

What is the cause of schizophrenia?

No single etiological factor is considered causative. The model most often used is that the person who develops schizophrenia has a specific biological vulnerability (or diathesis) that is triggered by stress and leads to emergence of schizophrenic symptoms.

Etiology:

1. **Genetic:**

- Single gene (serotonin receptor on chromosomes 5, D4 dopamine receptor gene on chromosome11).
- Polygenic theory appears to be more consistent with heterogeneity of the presentation of schizophrenia.
- Consanguinity:
  - Incidence in families is higher than in general population.
  - Monozygotic twin concordance rate is greater than dizygotic concordance rate (50 % , 15 % respectively).
  - Adoptive Studies: Test for genetic versus environmental influence by examining rates of schizophrenia in adopted away offspring and of normal parents. (10 % from schizophrenic parents versus 0 % from normal parents).
- Family Studies :

Morbid Risk	Relationship to Schizophrenic
14 %	Child of one schizophrenic parent
46 %	Child of two schizophrenic parents
10 %	Sibling
5 %	Parents

2. **Neurobiological:**

A. Dopamine hypothesis : schizophrenic symptoms are in part a result of increased dopamine activity in mesolimbic & mesocortical pathways.

B. Serotonin hypothesis: abnormal serotonin metabolism in some patients.

C. Disturbed balance between dopamine and serotonin as supported by the new generation of antipsychotics (dopamine-serotonin antagonists).

D. Glutamate hypothesis:
   a- Glutamate hyperactivity causes glutamate-induced neuro- toxicity.
   b- Glutamate hypoactivity. It has been implicated because ingestion of phencyclidine, a glutamate antagonist, produces an acute syndrome similar to schizophrenia.

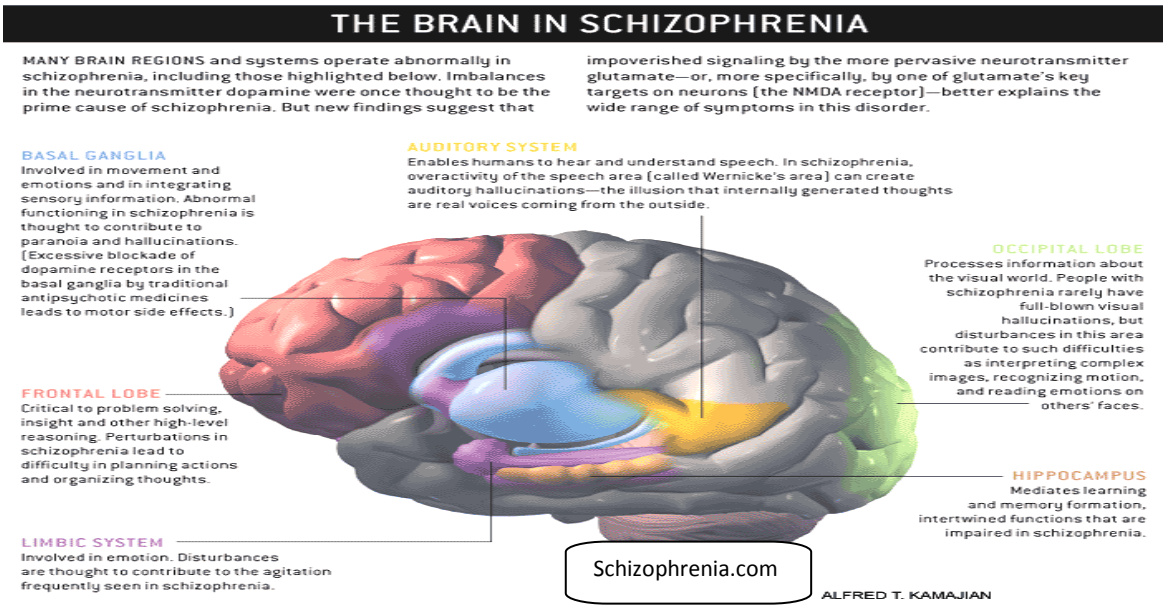
E. GABA hypothesis: the loss of inhibitory GABAergic neurons could lead to the hyperactivity of dopaminergic neurons. Some patients with schizophrenia have a loss of GABAergic neurons in the hippocampus.

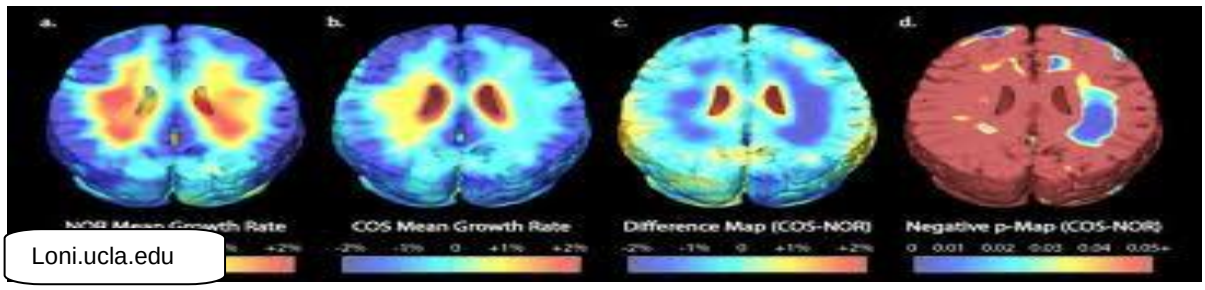
3. **Neuropathology and Neuroimaging *:***

- CT scan studies: Cortical atrophy in 10 - 35 %. Enlargement of the lateral and third ventricles in 10-50%.
- Findings correlate more with negative features and with cognitive impairments.
- MRI and PET (Positron Emission Tomography): Abnormal frontal, parietal and temporal lobe structure and metabolism**.**

4. Psychosocial and Environmental:

A. *Life Events*: Life stressors, particularly in the three months before onset, can induce schizophrenia in those who are vulnerable. ***B****. High Expressed Emotions (EE)* of the family (critical comments and emotional over-involvement. Patients whose families have high expressed emotions have higher relapse rate than those whose families have low expressed emotions.





Management: Bio-Psycho-Social approach / Multidisciplinary team.

Hospitalization	Medications	Psychosocial
It is usually indicated in the acute phase in order to: - **Clarify diagnosis** (rule out possible organic causes). - **Control the disturbed behavior**. -**Protect patient and / or others** (risk of dangerousness or suicide; close 1:1 nurse observation).  -Give electroconvulsive therapy (ECT) for catatonic type, those with concomitant depression and in resistant cases.	***Antipsychotics:*** e.g. haloperidol (10 - 20 mg) or olanzapine (10 - 20 mg). Adjust the dose based on the response and side effects. See antipsychotics down for further details.	-**Family therapy**, education, and explanation can significantly reduce relapse rate and high-EE family interaction can be diminished. Compliance may also be enhanced. -**Supportive therapy** and counseling. -**Rehabilitation** (Community - based process): 1-Social skill training (e.g. self-care). 2-Illness-management skills (e.g. when to take medication). 3-Vocational rehabilitation (for more stable cases). -Token economy: Positive and negative reinforcement are used to alter patient's unacceptable behavior.

Course and prognosis: Patient may recover from the active psychotic phase but complete return to normal level of functioning is very unusual. The common course is one of acute exacerbations with increasing residual impairment between episodes. The longitudinal course is that of downhill nature (disintegration of personality and deterioration of mental abilities and psychosocial functioning).

Prognostic Factors:

Good Prognostic Factors	Bad Prognostic Factors
• Late onset • Acute onset • Obvious precipitating factors • Good premorbid personality • Presence of mood symptoms (especially depression) • Presence of positive symptoms • Good support (married, stable family)	• Young age at onset • Insidious onset • No precipitating factors • Poor premorbid Personality • Low IQ • Many relapses • No remission in 3 years • Poor compliance • Negative symptoms • Poor support system • Family history of schizophrenia • High EE family

In general; third>>good prognosis, third>>poor prognosis, & third>>Intermediate prognosis.

Community Psychiatry ------- **أسئلة شائعة من أقارب المرضى**

هل يستطيع المريض العقلي الزواج ؟

- يختلف الحال باختلاف ظروف المرضى (شدة الحالة واستجابتها للعلاج و وجود الدعم الأسري والمتابعة الطبية المستمرة) فمن المرضى من يناسبه الزواج ويكون عامل استقرار لحالته ومنهم من قد يزيد حالته شدة.
- يعد الزواج وتكوين أسرة ورعايتها عبئا نفسيا على كثير من المرضى ، وبعضهم ليس لديه دافع قوي لذلك (في حين يبالغ بعض الناس في المجتمع في أن الزواج هو الحل الأمثل للمريض العقلي).

هل يستطيع المريض العقلي أن يتوظف؟

- يختلف الحال باختلاف ظروف المرضى (قدرات المريض وطبيعة أعراضه ونحو ذلك).
- رغم وجود عبء نفسي في العمل إلا إن له آثارا نفسية إيجابية إذا تم اختياره بما يلائم وضع المريض.

هل يعفي المرض العقلي المريض من المسؤولية القانونية و الجنائية؟ وهل يحجر عليه؟

- ليس كل مرض عقلي يسلب المريض مسؤوليته عن تصرفاته وأخطائه أو يبرر الحجر عليه.
- لكل حالة وضعها الخاص بها، تنظر فيها الجهات المختصة (لجان شرعية أمنية طبية) مع الاهتمام بالتقييم الطبي النفسي للحالة العقلية للمريض بكافة الوظائف العقلية (خصوصا إدراك حقيقة الواقع والاستبصار بالمرض والقدرة على تمييز الأمور وضبط التصرفات).

رابط فيلم تثقيفي عن الفصام إصدار وزارة الصحة https://www.youtube.com/watch?v=dPaR7Z7DGeA

AGGRESSIVE / VIOLENT PATIENT

صحيفة سبق الأليكترونية- مكة المكرمة (٢٧ محرم ١٤٣٤هـ) : أكدت جماعة المسجد أن الجاني كان حريصاً على الصلاة في المسجد جماعة ولا يفارقها، ويواصل مكوثه بالمسجد بعد الفجر يقرأ القرآن إلى طلوع الشمس ، وأمّ المصلين فيه عدة فروض، وشهد في الفترة الأخيرة تغيرات نفسية، وكان يراجع مستشفيات للصحة النفسية، وفي يوم الجريمة قابل الباكستاني في الطريق، وأطلق عليه النار وأرداه قتيلاً، ومن ثم دخل المسجد وبيده المسدس وباليد الأخرى عصى، وطلب من المصلين الخروج من المسجد، وهو يردد "اليوم ذبح"، وقتل الضحية الثانية، وطرد إمام المسجد بعد أن حاول ضربه، وأغلق على نفسه الباب وأوضحوا أنه تمت محاصرة الموقع من قبل الجهات الأمنية ، وبعد مفاوضات مع الجاني باءت بالفشل تدخلت الجهات الأمنية بقيادة قوات الطوارئ الخاصة، ودخلت المسجد ، وسيطرت على الجاني بعد محاصرته من أذان العصر إلى ما بعد صلاة العشاء ، مستخدمة الغازات المسيلة للدموع ، وشهد الموقع وجود مساعد مدير شرطة العاصمة المقدسة لشؤون الأمن.

Aggressive patients are frequently seen in emergency departments and in the medical and psychiatric wards.

DDx of Causes:

1. Brief psychosis /schizophreniform disorder /acute schizophrenia.
2. Substance abuse (intoxication / withdrawal).
3. Acute organic brain syndrome (e.g. delirium).
4. Mood disorders; mania - severe agitated depression.
5. Personality disorders (e.g. borderline personality disorder).

Medications:

Major Tranquilizers e.g. :

Olanzapine 5-10mg IM,

(Haloperidol 5 - 10 mg IM or

Chlorpromazine 50 - 100 mg IM.)

Benzodiazepines: e.g. diazepam 5-10 mg (slow IV infusion to avoid the risk of respiratory depression). However, benzodiazepines may aggravate hostile behavior in certain susceptible people (release of inhibitory mechanisms).

Hospitalization:

For further assessment and treatment.

Approach:

- Arrange for adequate help.
- Appear calm and helpful.
- Avoid confrontation.
- Take precautions:
  - Never attempt to evaluate an armed patient.
  - Other persons should be present (security guards or police officers).
  - Keep the door open for an unavoidable exit.
  - Restraints if needed by an adequate number of people using the minimum of force.
  - Carefully search for any kind of offensive weapon.
- Aim to save patient and others.
  - Anticipate possible violence from hostile, threatening behavior and from restless, agitated abusive patient.
- Do not bargain with a violent person about the need for restraints, medication or psychiatric admission.
- Reassure the patient and encourage self-control and cooperation.

Restraint Technique: Enough staff should be available. If restraint becomes necessary, assign one team member to the patient's head and to each extremity. Be humane but firm, and do not bargain, start together to hold the patient and accomplish restraint quickly.

youtube.com/watch?v=8zXsNEf7DuI

Antipsychotic Medications (Neuroleptics)

Indications:
A.Functional psychosis: schizophrenia, schizoaffective disorders, schizophreniform disorder, brief psychotic disorder, mania, postpartum psychosis, psychosis with depressed mood, and delusional disorders.
B.**Organic psychosis**: psychosis induced by medications, substance abuse, delirium, and dementia.
C.Violence/aggression, agitation, and excitement.

First Generation Antipsychotics [FGAs] (Also called conventional, typical, or traditional antipsychotics).

Chlorpromazine (Largactil) was the first drug (in the mid-1950s) that significantly reduced symptoms of psychosis. Then, other drugs with similar clinical effects were introduced; haloperidol, sulpiride, …).

Mechanism of action;, high blockade of dopamine receptors type 2 (D2).
Therapuetic effect: in the **mesolimbic** pathwayD2 blockade reduces *active* psychotic features. This may take up to 6 weeks to appear)**.**
Adverse effects: (may appear within hours - weeks)

 # Antidopaminergic *S/E; 1.* In Nigrostriatal tract >>> EPSE (because of the resulting hypercholinergic effect, which manifests in skeletal muscle spasms. These side effects, in contrast to Parkinson's disease, are better treated with anticholinergic medications rather than dopaminergic drugs). **2. In Tuberoinfundibular tract >>> hyperprolactinemia** (dopamine inhibits prolactin release from the anterior pituitary. Thus, antidopaminergics induce excessive prolactin secretion, which lead to gynecomastia and amenorrhea. Some gynecologists prescribe dopaminergic medications (e.g. bromocriptine) to reverse amenorrhea in psychotic females, which may aggravate their psychosis). **3. In Mesocortical tract >>>** reduced concentration, low initiation, lack of motivation, and restricted affect.

 # Anticholinergic S/E; dry mouth, constipation, urinary retention, poor erection, blurred vision, and precipitation of closed-angle glaucoma.

 # Antiadrenergic S/E; postural hypotension and inhibition o ejaculation.

 # Antihistaminergic S/E; sedation and weight gain.

Second Generation Antipsychotics [SGAs] (Also called novel or atypical antipsychotics, serotonin-dopamine antagonists). **SGAs**; olanzapine (zyprexa), quetiapine (seroquel), clozapine (leponex), risperidone (risperdal), & paliperidone (invega).

Mechanism of action; blockade of dopamine and serotonin (5HT A_2) receptors.
Therapeutic effects; More specific for the mesolimbic than nigrostriatal dopamine system >>> less EPSE. In the mesocortical tract blockade of 5HT A_2 enhances dopamine function (5HT inhibits dopamine) >>> improve negative symptoms of psychosis: low initiation, lack of motivation, and restricted affect. They improve *both positive and negative* symptoms of psychosis and can help some *resistant* cases.

Adverse effects; Less EPSE, antiadrenergic, anticholinergic S/E. but there is a high risk of metabolic syndrome (see below).

Third Generation Antipsychotics
Dopamine System Stabilizers [DSS].
Aripiprazole: Unlike the SDAs, it is not a D_2 antagonist, but is a partial D_2 agonist; in mesolimbic it competes with dopamine (functional antagonism) >>> less active symptoms. However, in the mesocortical tract it acts like the SDAs. It does not increase weight and is usually non-sedating but somnolence may occur in some patients. Side effects include agitation, anxiety , headache, insomnia, dyspepsia, , and nausea. Seizures have been reported. Prolactin elevation does not typically occur. Aripiprazole does not cause significant QT_c interval changes.

Medication / Side effects	First GAs	Second GAs				Third GAs
	Haloperidol (Haldol) 10 mg	**Risperidone (Risperdal)** 4 mg	**Olanzapine (Zeprexa)** 10 mg	**Quetiapine (Seroquel)** 200mg	**Clozapine (Leponex) 400mg**	**Aripiprazole (Abilify) 15 mg**
						
	18 SR / 25 tablets	582 SR / 60 tablets	314 SR / 28 tablets	665 SR/ 30 tablets	156 SR/ 50 tablets	525 SR / 28 tablets
EPSE	++ to +++	0 to ++ (> 6 mg)	0	0	0	0 +
Sedation	+ to + + +	+	+	+	+ + +	0
Weight gain	0 to ++	+	+++	+	+++	0
Prolactin increase	+ + to + ++	+ to + +	0 to +	0	0 to +	0
Orthostatic hypotension	+ to + + +	+	+	0	+ to + + +	0
Agranulocytosis	0	0	0	0	+ + +	0
Prolonged QT In ECG	0 to + +	+	0	+	0	0
Seizures	+	0	+	0	+++	+
Anticholinergic S/Es	++ to +++	0	+	0	+++	0
Advantages	Effective on active symptoms Cheap.	Effective on negative features	Effective on negative features	No hyperprolactinemia	Effective in resistant cases.	No wt gain No hyperprolactinemia
Disadvantages	Severe EPSE + Many other S/Es	Hyperprolactinemia + metabolic syndrome	Metabolic syndrome	Metabolic syndrome	Metabolic syndrome + Agranulocytosis (check WBCs). + High risk of seizures	Insomnia + Agitation

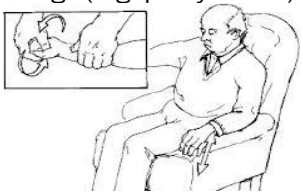
DEPOT (SLOW RELEASE) ANTIPSYCHOTICS: These are long-acting antipsychotic drugs, given as deep intramuscular injections to patients who improve with drugs but cannot be relied on to take them regularly by mouth (i.e.poor compliance). Such patients usually suffer from either; chronic schizophrenia, delusional disorders, or schizoaffective disorder. A test dose is usually given (¼ - ½ the dose) to check patient's tolerability. Depot injections are released slowly in 1 – 8 weeks.

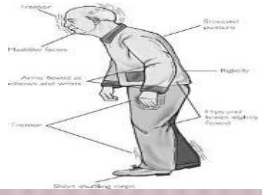
- Risperdal consta:25-50 mg./2weeks.
-Zuclopenthixol decanoate (Clopixol) : 200 – 600 mg. /month.
- Flupenthixol decanoate (Depixol – Fluanxol): e.g. 20 – 100 mg / month.
-Haloperidol decanoate (Haldol) : 200 – 400 mg. / month.
-Fluphenazine decanoate (Anatensol – Modecate): e.g. 25 – 75 mg / month.

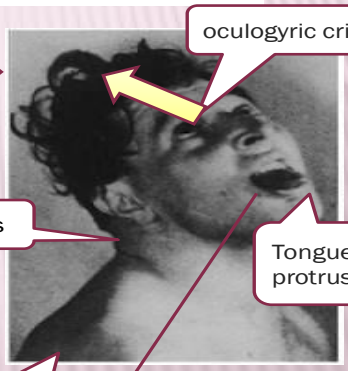
Extra-Pyramidal Side Effects (EPSE)

1- Acute dystonia: appears within days after Rx. Severe painful spasm of neck muscles (torticollis), ocular muscles (oculogyric crisis) muscles of the back (opisthotonus) and tongue protrusion. Treated with anticholinergic drugs (e.g. procyclidine 5 – 10 mg IM or P.O.).

2- Parkinsonism: appears within weeks after treatment, its features: stooped posture, akinesia, muscle rigidity, masked face, and coarse tremor. Treated with anticholinergic drugs (e.g. procyclidine)







شد وألم شديد في عضلاتي من المسؤول DA / Ach? عالجوني بسرعة.

Extra-Pyramidal Side Effects (EPSE)

3- Akathisia :

Inability to keep still + unpleasant feelings of inner tension.
Appears within days – weeks.
Generally disappears if the dose is reduced.
Benzodiazepine or beta-blockers may help in the treatment, whereas anticholinergics have no therapeutic effect.

4- Rabbit Syndrome:

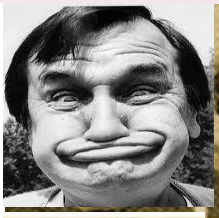
Rapid perioral tremor.

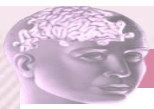
5- Tardive Dyskinesia:

It occurs in about 10 – 20 % of patients on long-term antipsychotics for several years. *Features*: chewing, sucking or choreo-athetoid movements of the facial neck and hand muscles.

Super-sensitivity of dopamine receptors.

No specific treatment, the only agreed treatment is to discontinue the antipsychotic drug when the patient's state allows this.





ANTIADRENERGIC

Postural hypotension.

Inhibition of ejaculation.

ANTICHOLINERGIC

Blurred vision

Precipitation of closed – angle glaucoma.

Dry mouth.

Constipation

Urinary retention.

Poor erection.

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Metabolic syndrome

(with atypical Rx)

The syndrome is diagnosed when a patient has three or more of the following five risk factors:

(1) abdominal obesity,

(2) high triglyceride level,

(3) low HDL cholesterol level,

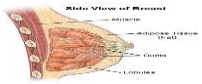
(4) hypertension.

(5) an elevated fasting blood glucose level.

It increases risk of cardiovascular disease and type II diabetes.

Others:

Hyperprolactinemia.



Galactorrhea.

Amenorrhea.

Low libido.

Sedation

(antihistamine effect).

Weight gain.

Toxic Effect:

Neuroleptic Malignant Syndrome (NMS)

see Psychiatric Emergencies.

Psychotic Disorders 462Psych Prof. Alsughayir ٣٠

Neuroleptic Malignant Syndrome (NMS): idiosyncratic reaction to antidopaminergics

Features:

Muscle rigidity (trunk, limbs, neck, and throat), sweating and hyperthermia (check temperature), autonomic instability: fluctuating pulse, BP and respiration, akinesia, and clouding consciousness. **Onset** after 2 – 28 days , lasts 5 – 10 days after oral antipsychotics. **Incidence** is higher in males > 40 years.

Laboratory Abnormalities (Secondary Features) Raised CPK (creatinine-phosphokinase), raised potassium, neutrophilia.

Treatment (should be in Medical Intensive Care Unit " MICU"): Stop antipsychotics, monitor vital signs, support respiratory functions, reduce body temperature (cooling), treat secondary infection (if any), rehydrate, bromocriptine (30 – 60 mg / day) to enhance dopaminergic activity, Dantrolene (5 – 10 mg / day) to reduce muscle rigidity, and supportive treatment: dialysis may be required, to reduce the risk of acute renal failure that may result from excessive amounts of myoglobin in the blood following muscle tissue destruction due to excessive prolonged very severe muscle rigidity.

ELECTROCONVULSIVE THERAPY (ECT)

Indications for ECT:

1. Schizophrenia (catatonic, resistant to drugs).
2. Depression:
   - Depressive disorder with suicidal risk.
   - Depressive stupor or marked retardation.
   - Depressive disorder with delusions
   - Inability to take drugs :
     - First trimester of pregnancy.
     - In the elderly.
     - In physical diseases e.g. renal failure.
3. Post-partum psychosis.
4. Schizoaffective disorder.
5. Mania and mixed affective states.

History and Concept: Patients with concomitant schizophrenia and epilepsy were found to improve in psychosis following repeated fits. It was therefore, thought that there is an antagonism between schizophrenia and epilepsy. In 1938 Cerletti administered an electrically – induced fit to a catatonic vagrant schizophrenic patient who then showed reasonable improvement. Later, anesthesia was introduced and convulsions were modified using muscle relaxing agents.

Psychiatric disorders that may show deterioration or no response to ECT: Phobic disorders, conversion disorder, Primary hypochondriasis (not due to depression), depersonalization disorder.

Precautions: Recent research showed no absolute contraindications to ECT. At one time raised intracranial pressure was considered as the only absolute contraindication to ECT. Remember that not all space occupying lesions produce raised intracranial pressure. **Relative Contraindications: A- To anesthesia and muscle relaxants. B- To ECT itself:** Cardiac infarct in the preceding 3 months (some references extend it to 2 years). Other cardiac diseases including arrhythmias. History of cerebral infarction. Brain tumor.

Mode of Action of ECT: The exact mode of action is unknown. The current hypothesis: the beneficial effect which depends on the cerebral seizures (not on the motor component) is thought to result from neurotransmitter changes probably involving serotonin and noradrenaline transmission.

ECT Preparations: Explanation to the patient (or his caretakers).ECT consent by the patient or his caretaker. Hospital admission for full physical assessment (fitness for anesthesia and ECT). Fasting (midnight).Oxygenation to overcome succinylcholine-induced apnea, to facilitate seizure activity and to reduce memory impairment. Muscle relaxant to reduce the consequent motor effects (severe muscle contraction may lead to bone fracture). Placing a mouth gag in patient's mouth to prevent tongue or lip bites. Machine and electrodes preparations. Decreasing scalp's resistance with jelly or normal saline.

ECT Procedure:

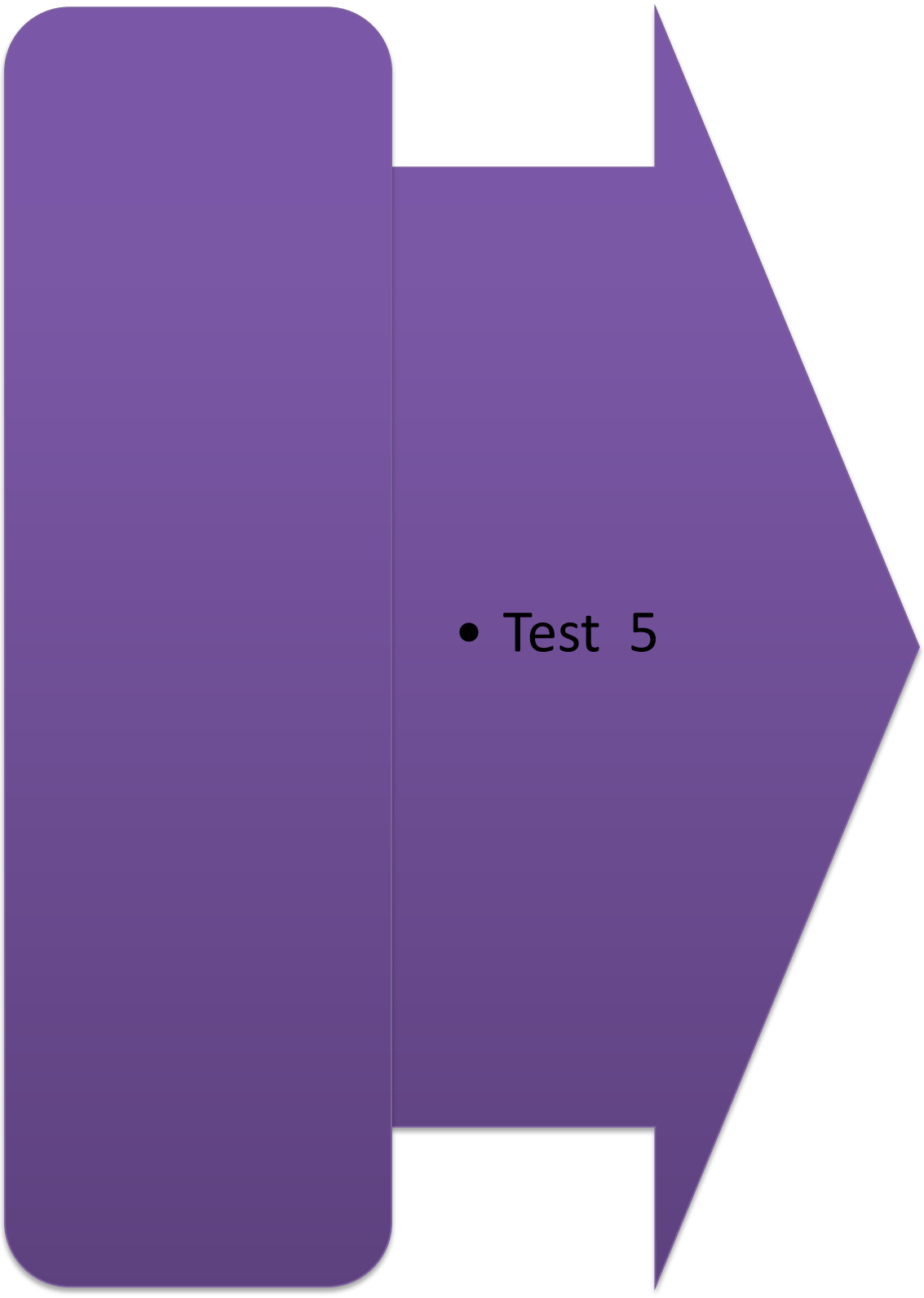
- Bilateral (most commonly used procedure)
  - One electrode on each side of the head (fronto-temporal position).
  - It gives a rapid response.
  - Bi-frontal position can be used; it produces less memory impairment therapeutically ineffective.
- Unilateral:
  - Both electrodes are placed on the non – dominant side.
  - It produces less memory impairment but less effective than bilateral.
- ECT is usually given **2 – 3 times a week** with a total of **6 – 12** sessions, according to response and progress. Response begins usually after 2 – 4 sessions. If there is no response after 8 sessions, it is unlikely that more sessions will produce a useful change.
  In depressed patients, antidepressants should be started towards the end of the course of ECT to reduce the risk of relapse.

youtube.com/watch?v=9L2-B-aluCE

Side Effects of ECT: (ECT in general is a safe procedure)

- Headache (due to temporary increase in intracranial pressure).
- Body aches and myalgias (due to muscle contraction)
- Memory impairment (both retrograde and anterograde amnesia).
  - Duration varies (days – several months).
  - May be due to neuronal hypoxia during seizure.
- It may induce mania in certain susceptible depressed patients.
- Bone fracture and tongue or lip injury.
- Very rarely death (in patients with cardiovascular disease).

Misconceptions about ECT: Dangerous procedure/causes serious brain damages/involves a high voltage (110 – 220 V) current. Some traditional healers tried 110 V current with some patients assuming that it is the same procedure used by psychiatrist (ECT).


• Test 5

1.A 27-year-old man was brought to outpatient psychiatry clinic with 2 months history of hearing voices commenting on his actions, persecutory delusion, and disorganized behavior without disturbed mood. However, he returned normal with no medications. The most likely diagnosis is:

a. Brief psychotic disorder.
b. Schizophreniform disorder.
c. Schizoaffective disorder.
d. Schizophrenia.

2 . A 36-year-old male was brought to the emergency department by his parents who gave a 9-year history of mental illness. He is treated with a monthly injection at a mental hospital. Parents are worried about their son's mutism, rigid limbs, and clouding consciousness. The most appropriate management step is:

a. Olanzapine IM.
b. Brain CT-Scan.
c. CPK blood test.
d. Brain MRI.

3. A 31- year-old woman delivered 3 weeks ago, she then gradually became paranoid, agitated aggressive, restless and insomniac. The most appropriate treatment is:

a. Escitalopram.
b. Fluoxetine.
c. Carbamazepine.
d. Quetiapine.

4. A 22-year-old college student has one year history of poor academic performance, poor self-care, posturing, rigidity and lack of motivation. The most likely diagnosis is:

a. Catatonic schizophrenia.
b. schizoaffective disorder.
c. Schizoid personality disorder.
d. Paranoid personality.

5. A 23-year-old single female developed hallucinations, paranoid delusions and disorganized behavior. She was treated with risperidone 4 mg/day. She has amenorrhea for 4 months. Your best initial step would be:

a. Bromocriptine 10 mg.
b. Discontinue risperidone.
c. Reduce risperidone to 3 mg.
d. Change to clozapine 200 mg.

Answers:

1	2	3	4	5
B	C	D	A	C

6

Personality Disorders

Shadi has a chronic sense of insecurity, suspiciousness towards others**,** and difficulties in initiating and maintaining relationships.

Personality refers to patterns of thinking, emotion, motivation, and behavior that are activated in particular circumstances. It is enduring over one's lifetime. Personality is formed in early adulthood and relatively consistent throughout the life. However, continuous maturation & personality modification in adult life have been observed under the influence of life events, environment, learning ability, and many other factors.

Personality disorders:
Deviation of personality from social and cultural expectations.
-Lifelong pervasive pathological patterns of thinking, emotion, interpersonal functioning, and impulse control.
-Lead to functional impairment /significant distress.
-Age : > 18 years (21 years).
-Not due to other causes (medical illness, substance abuse, …).

Classification of personality disorders:
Cluster A (Odd thinking)**;**
1. Schizoid, 2-Paranoid, 3- Schizotypal.
Cluster B (Dramatic behavior)**;**
1- Borderline. 2-Antisocial. 3-Narcissistic .
4- Histrionic.
Cluster C (Fearful):
1-Avoidant. 2.Dependent. 3.Obsessive Compulsive.

Cluster A:

Paranoid Personality Disorder:
Excessive mistrust /suspiciousness of others' motives (even friends &associates) without sufficient basis. Exaggerated bearing of grudges persistently (e.g. insults, slights, injuries).
DDx; other personality disorders and psychotic disorders**.**
Coping style: Guarded and protective of their autonomy, often with arrogant belief in their own superiority.

Defense Mechanisms: *Splitting:* Self and others are seen as all good or all bad. *Denial:* Refusal to admit painful realities . *Projection:* Ascribe to others one's own impulses. *Projective identification:* Project one's impulses plus control of others as a way to control one's own impulses**.**

Patient concern: Exploitation and betrayal.
Approach: Acknowledge complaints without arguing and honestly explain medical illness.

Treatment: Psychotherapy + Antipsychotics (e.g. olanzapine 10 mg).

Schizoid Personality Disorder:
Social isolation (with self-sufficiency), indifference to praise, criticism and feelings of others, choosing solitary activities and jobs, and poor social skills**.**

DDx; other personality disorders and psychotic disorders**.**
Coping style: Inner world insulated from others.

Defense Mechanisms: *Denial and splitting:* See above. *Isolation of affect:* Thoughts stored without emotion. *Intellectualization:* Replace feelings with facts. *Fantasy :* obtaining gratification through excessive day dreams.
Patient concern: Violations of privacy**.**

Approach: Accept his unsociability and need for privacy. Reduce the patient's isolation as tolerated

Treatment: Psychotherapy + Antipsychotics (e.g. olanzapine 10 mg).

Schizotypal Personality Disorder: Odd patterns of thinking, speech, belief, behavior or appearance compared to the social norms, unusual perceptual experiences (e.g. bodily illusions), superstitious thinking or claim powers of clairvoyance, and Idea of reference.
DDx; other personality disorders and psychotic disorders**.**

Defense Mechanism:
Regression: Revert to childlike thoughts, feelings, and behaviors. *Denial, splitting, and fantasy:* See above.

Patient concern*:* Exploration of oddities.
Approach*:* Empathize with the patient's oddities without confrontation.

Treatment: Psychotherapy + Antipsychotics (e.g. olanzapine 10 mg).

Cluster B:

Ms. Nouf's is a 24 year-old female **has long history of** instability in mood, behavior, and relationships. She had several intense anger outbursts with destructive behavior.

1. Borderline Personality Disorder (BPD) a cluster B personality Disorder

Diagnostic criteria: a pervasive pattern of **instability** in a variety of contexts, as indicated by **≥ 5 of 9;**

1. Instability of affective / mood (e.g., intense dysphoria, irritability).
2. Intense frequent inappropriate anger outbursts (+/- destructive behavior, fights)
3. Instability of interpersonal relationships.
4. Impulsivity with potentially self-damaging behavior (e.g., substance abuse, reckless driving, sex).
5. Recurrent self-mutilating / suicidal behavior, gestures, or threats.
6. Unstable self-image with identity disturbance.
7. Chronic feelings of emptiness
8. Efforts to avoid abandonment.
9. Stress-related paranoid ideation.

Differential Diagnosis

1. **Schizophrenia**: unlike patients with schizophrenia, BPD shows brief psychosis (micro-psychotic episodes; transient short-lived, fleeting psychosis) but lack classic schizophrenic signs.
2. **Schizotypal personality disorder**: show marked peculiarities of thinking, strange ideation, and recurrent ideas of reference.
3. **Paranoid personality disorder**; BPD shows short-lived suspiciousness.

Defense mechanisms (subconscious mental processes):

A.Splitting : by considering each person to be either all good or all bad. Because of this splitting, the good person is idealized, and the bad person devalued. Shifts of allegiance from one person or group to another are frequent. Splitting causes patients to alternately love and hate therapists and others in the environment. This defense behavior can be highly disruptive on a hospital ward and can ultimately provoke the staff to turn against the patient

B.Acting Out: patients directly express unconscious wishes or conflicts through action to avoid being conscious of either the accompanying idea or the affect. Tantrums, apparently motiveless assaults, child abuse, and pleasureless promiscuity are common examples**.** Repetitive self-destructive acts (e.g. drug overdose, slash their wrists) to express anger, or to elicit help from others.

C.Projective identification: it consists of 3 steps.

1. An unacceptable aspect of the self (e.g. hatred, rejection, envy) is projected onto someone else (the recipient e.g. a family member, a friend, a physician).
2. The patient then tries to coerce the recipient into accepting (identifying with) what he/she has projected.
3. Finally, both the recipient and the patient have the same idea (e.g., the recipient hates, rejects, or envies the patient).Actually it is the opposite.

Epidemiology; Prevalence: 2% of the population, Women: men = 2: 1.

Course and Prognosis

BPD Patients (axis II diagnosis) have a high incidence of parasuicide /suicide rates, substance abuse, and MDEs (axis I diagnosis), physical complications of their repetitive self-destructive acts (axis III diagnosis), and psychosocial problems (axis IV diagnosis). Longitudinal studies show no progression toward schizophrenia.

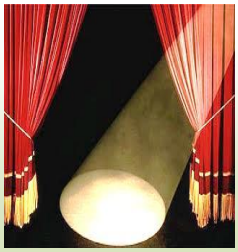
Treatment of BPD (for best results, pharmacotherapy + psychotherapy**)**

Pharmacotherapy

1. **Antipsychotics**: (e.g. olanzapine 10 mg) to control brief psychotic episodes, anger, and hostility.
2. **Antidepressants** (e.g. paroxetine 20 mg or any other SSRI) improve the depressed mood common in patients with borderline personality disorder.
3. **Anticonvulsants** (e.g. carbamazepine) have successfully modulated mood fluctuation, impulsive and destructive behavior in some patients, and may improve global functioning for some patients.
4. Benzodiazepines: although help anxiety, they may release disinhibition, hostility, and anger.

Psychotherapy: a particular form of psychotherapy called dialectical behavior therapy (DBT) has been used for patients with borderline personality disorder, especially those with parasuicidal behavior, such as frequent cutting. DBT is eclectic (supportive, cognitive, interpersonal, and behavioral therapies). Patients are seen weekly, with the goal of identifying ambivalent feelings, tolerating frustration /rejection and decreasing self-destructive behavior.

2. Histrionic Personality Disorder



Main Features:
- Attention seeking behavior (verbal and nonverbal).
- Excessive superficial emotions (shallow and shifting).
- Self – dramatization and exaggeration.
- Provocative and seductive behavior.
- Suggestibility with superficial thinking.

Coping style: emotion-driven and self-centered thinking and behavior.

Defense mechanisms:

Repression: Involuntary forgetting of painful memories, feelings, or experiences.

Dissociation: Disrupted perceptions or sensations, consciousness, memory, or personal identity.

Sexualization: Functions or objects are changed into sexual symbols to avoid anxieties.

Regression: Subconscious return to childlike state to deal with a distressful situation.

DDx:
1. Borderline personality disorder.
2. Narcissistic personality disorder.
3. Somatoform disorders (may co-exist as an axis I diagnosis).

Treatment:

Psychological treatment: supportive and directive approaches to increase awareness of the real feelings underneath the histrionic behavior. Pharmacological treatment: antianxiety or antidepressant drugs may transiently be used.

أنا أنا
أنا الأفضل
أنا الأذكى
أنا أنا
أنا الأعرف
أنا الأرفع
أنا الأروع

وغيري
الأدنى
و الأردى
وهو
الأعور
الأعرج
الأقرع

3. Narcissistic Personality Disorder

ومما يزهدني في أرض أندلس
ألـقاب معتمد فيها ومعـتضد

ألـقاب مملكة في غير موضعها
كالهر يحكي انتفاخا صورة الأسد

Main Features:
- Exaggerated self-importance and superiority.
- Constant seeking of admiration (not only attention); (meetings, media, twitter, facebook, …)
- Preoccupation with entitlement, success and power.
- Excessive and unrealistic fantasies.
- Excessive concern about appearance more than essence.
- With others; exploitative, envious, hypersensitive to criticism, and lacks empathy.
- Fragile self-esteem.

Coping style: Superiority and arrogance, self-aggrandizing, self-centered, self-protecting, demeaning, demanding, critical

Defense mechanism:

Idealization: constant seeking to be always the best (No. 1, rank A) with self-inflation to augment self-esteem.

Projection: bad self components (e.g. incompetence)are projected onto others and followed by devaluation.

DDx:
1. Histrionic personality disorder. 2.Paranoid personality disorder. 3.Delusional disorders (grandiose type).

Treatment: they rarely seek or accept treatment as their traits are highly desired and accepted by ego (ego-syntonic) and drive to success. Episodes of anxiety or depression can be treated symptomatically.

3. Antisocial Personality Disorder

Main Features: [Diagnosis is not made before the age of 18].
- Violation of the rights of others and conflicts with the law.
- Lack of remorse and guilt.
- Lack of loyalty (lying, exploiting others…)
- Failure to learn from experience.
- Impulsive behavior & failure to plan ahead.
- Tendency to violence & - Consistent irresponsibility.

Coping style: Seeks advantage, freedom, and autonomy.

Defense mechanisms: *Splitting, isolation o affect, and acting out.*(See above**).**

Acting out: Expression in action/behavior rather than in words/emotions

DDx: 1.Substance abuse: it may be a comorbidity primary or secondary to antisocial behavior. 2.Mental subnormality.
2. Borderline personality disorder (coexistence is common). 4.Psychotic disorders (e.g. mania, schizophrenia…).

Treatment: Psychological treatment (group therapy is more helpful than individual therapy particularly if patients are immobilized, e.g. placed in hospitals), firm limits are essential. Therapeutic community or long-term hospitalization is sometimes effective. Treatment of substance abuse often effectively reduces antisocial attitude and tendency.

For details about personality disorders & defense mechanisms:
كتاب " ما تحت الأقنعة ، اعرف شخصيتك وشخصيات من تعرف " أ د محمد الصغيّر

Cluster C:

1- Dependent Personality Disorder

Diagnostic criteria: a pervasive dependence, clinging behavior, and fears of separation indicated by ≥ 5 of:

1. Difficulty making personal **decisions** without excessive amount of advice and reassurance from others.
2. Needs others to assume **responsibilities** for most areas of his/ her life.
3. Difficulty expressing **disagreement** because of fear of loss of support and approval (unassertive).
4. Difficulty **doing things** on his/her own or initiating projects because of lack of self-confidence.
5. Goes to excessive lengths to obtain support from others (doing unpleasant things).
6. Feels uncomfortable or helpless when alone.
7. Urgently seeks another relationship as a source of support when one ends.
8. Preoccupied with fears of being left to take care of self.

DDx:
1.Avoidant Personality D.
2.Agoraphobia(may coexist).

Epidemiology:
Prevalence=1%.
Women > men.
Persons with chronic physical illness in childhood may be most susceptible to the disorder.

Defense Mechanisms:

1-Idealization of others (protective…).

2-Regression.

3-Projective Identification.

Treatment:

1.Insight-oriented therapies & behavior therapy enable patients to become more independent, assertive, and self-reliant.
2.Medications; to deal with specific symptoms, such as anxiety and depression, which are common associated features.

2- Avoidant Personality Disorder

A pervasive pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation, as indicated by **≥** 4 of the following:

1. avoids occupational activities that involve significant interpersonal contact, because of fears of criticism, disapproval, or rejection
2. is unwilling to get involved with people unless certain of being liked.
3. shows restraint within intimate relationships because of the fear of being ridiculed.
4. is preoccupied with being criticized or rejected in social situations.
5. is inhibited in new interpersonal situations because of feelings of inadequacy.
6. views self as socially inept, personally unappealing, or inferior to others.
7. is unusually reluctant to take personal risks or to engage in any new activities because they may prove embarrassing

DDx:
1. Social phobia (may coexist).
2. Depression (may coexist).
3. Dependent personality D.
4. Schizoid personality D.

Epidemiology:

Men=women.

Prevalence: 1% in the general population &10% of psychiatric clinics

Defense Mechanisms:

1- Repression / inhibition.

2- Isolation of affect.

3- Avoidance

Treatment:

Psychological treatment: posting self-confidence and self-acceptance, assertiveness training social skills, and group therapy. **Pharmacological** treatment to manage anxiety or depression when present.

Mr. Kamal is a 33-year-old married employee sought treatment at his wife's insistence. She could no longer tolerate his rigidity, scrupulousness about matters of health, excessive perfectionism, and excessive devotion to productivity to the exclusion of leisure activities.

3- Obsessive Compulsive Personality Disorder (OCPD)

A pervasive pattern of preoccupation with orderliness, perfectionism, and interpersonal control, at the expense of flexibility, openness, and efficiency, as indicated by ≥ 4 of 8:

1. excessive preoccupation with details, organization, or rules to the extent that the major point of the activity is lost.
2. excessive perfectionism that interferes with task completion.
3. excessive devotion to work and productivity to the exclusion of leisure activities and friendships.
4. inflexibility and scrupulousness about matters of morality, health, ethics, or values.
5. inability to discard worthless or worn-out objects even when they have no sentimental value
6. reluctance to delegate tasks or to work with others unless they submit to exactly his/her way of doing things.
7. adoption of a miserly spending style toward both self and others; money is viewed as something to be hoarded for future catastrophes.
8. rigidity and stubbornness.

DDx:

1-Obsessive-compulsive disorder (OCD): although OCPD and OCD have similar names, the clinical manifestations of these disorders are quite different; OCPD is not characterized by the presence of obsessions or compulsions and instead involves pervasive pattern of preoccupation with orderliness, perfectionism, and control and must begin by early adulthood. The most difficult distinction is between some obsessive-compulsive traits and OCPD. The diagnosis of personality disorder is reserved for those with significant functioning impairments. Comorbidity is common. If an individual manifests symptoms of both OCPD and OCD, both can be given. **Axis I; OCD. AxisII; OCPD.**

2-Narcissistic personality disorder patient seeks perfectionism motivated by status and more likely to believe that he has achieved it, whereas OCPD patient is motivated by the work itself and more likely to believe that he has not achieved perfectionism.

Epidemiology: the prevalence in the general population is 1 %. Men > women (2:1). OCPD is found more frequently within professions requiring strict dedication to duty and meticulous attention to details.

Defense Mechanisms:

1. Isolation of affect.
2. Displacement.
3. Reaction Formation.
4. Undoing.

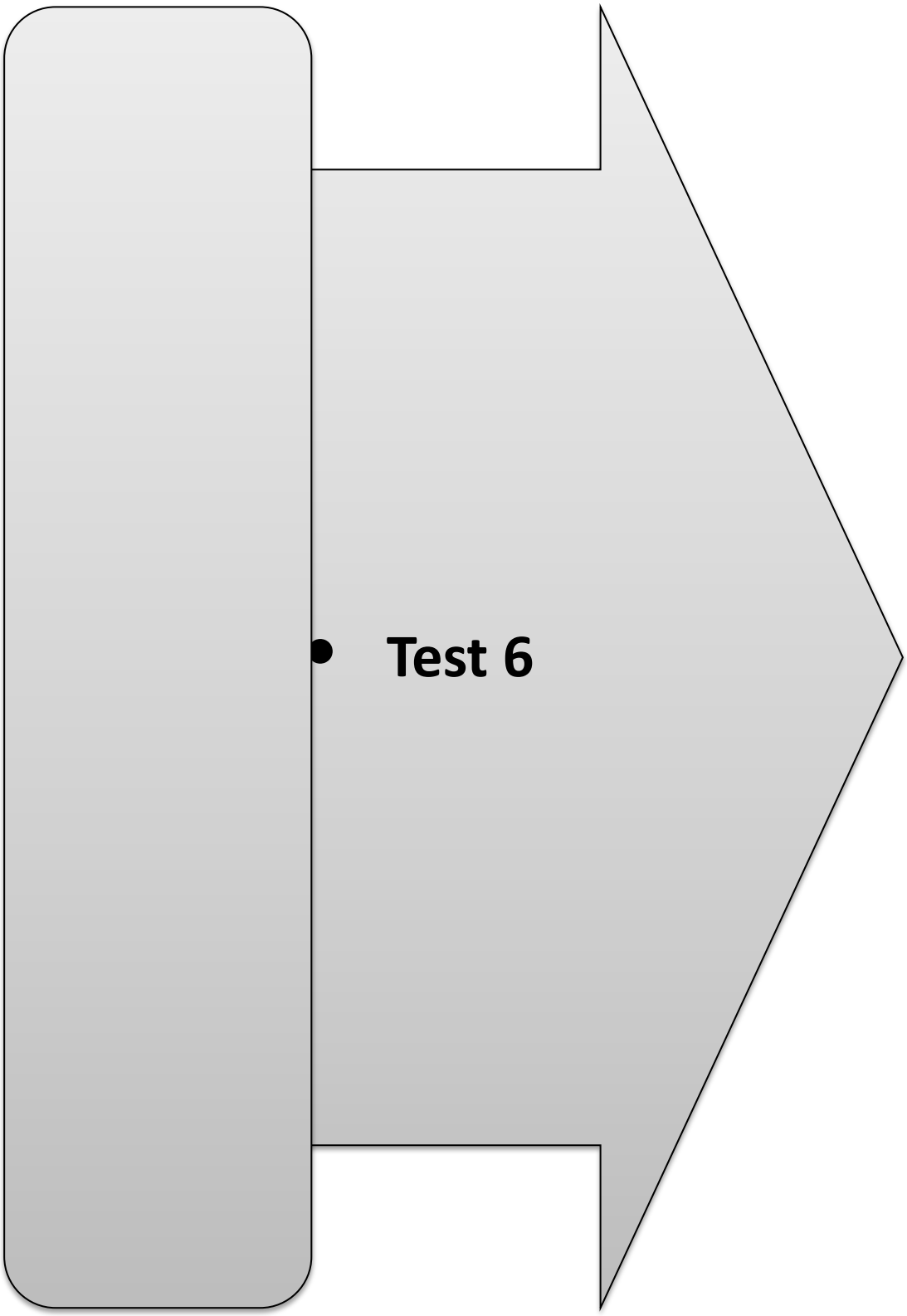
Course & Prognosis:

OCPD patients may flourish in professions demanding devotion to work, meticulous attention to details, and productivity, but they are vulnerable to depressive disorders & OCD.

Treatment:

Psychological: supportive and directive individual or group therapy.

Pharmacological: clomipramine or any SSRI have been found useful (+ Psychotherapy).


Test 6

1. A 28-year-old woman has a dedicated seeking of approval, preoccupation with entitlement, wealth and power. Her fantasies have always been excessive and unreasonable. What is the most likely personality disorder he has?

a. Dependant PD.
b. Histrionic PD.
c. Narcissistic PD.
d. Antisocial PD.

2.A 31-year-old man has been self-sufficient person with emotional coldness and little interest in interpersonal relationship. What is the most likely personality disorder he has?

a. Borderline PD.
b. Schizotypal PD.
c. Avoidant PD.
d. Schizoid PD.

3. A 29-year-old woman has long history of instability in mood, behavior, and relationships. She had several intense anger outbursts with destructive behavior. What is the most likely personality disorder he has?

a. Schizoid PD.
b. Borderline PD.
c. Schizotypal PD.
d. Avoidant PD.

4.A 33-year-old man has excessive perfectionism that interferes with task completion , and excessive devotion to productivity to the exclusion of leisure activities. What is the most likely personality disorder he has?

a. Borderline PD.
b. Schizotypal PD.
c. Obsessive-compulsive PD.
d. Schizoid PD.

5. A 32-year-old woman has excessive preoccupation with fears of being left to take care of self. She has difficulty making personal decisions and requires excessive amount of advice and reassurance from others. What is the most likely personality disorder he has?

a. Schizotypal PD.
b. Dependant PD.
c. Obsessive-compulsive PD.
d. Schizoid PD.

Answers:

1	2	3	4	5
C	D	B	C	B

7

Depressive & Mood Disorders

- Introduction/Definitions.
- Major Depressive Episodes/Disorder.
- Postpartum Depression
- Dysthymic Disorder.

Antidepressants

Suicide - Parasuicide

- Manic-Hypomanic-Mixed Episodes.
- Bipolar I & II Disorders

Mood stabilizers

Ms. Amal is a 27-year-old single woman works as a teacher. She has a five-week history of low mood, chest tightness, poor appetite, disturbed sleep, excessive guilt feelings, and loss of interest in her social activities. Her father has a history of mood (affective) disorder.

Healthy people have a sense of control over their moods, and experience a wide continuum range of feelings with normal variations **[** usual sadness **< < <** - - - - - - - - - - - - - - - - **> > >** usual happiness **]**.
Patients with mood(affective) disorders have a loss of that sense of control over feelings , a subjective experience of great distress and abnormality in the range of mood (e.g. depression, euphoria) and result in impaired interpersonal, social, and occupational functioning. Anxiety disorders are not considered as part of mood disorders in the modern classification, they are classified in a separate category although anxiety is a variant of normal mood.

Depressive Disorders (DSM-5)

- Major Depressive Disorder, Single and Recurrent Episodes
- Persistent Depressive Disorder (dysthymic Disorder & chronic major depressive disorder)
- Disruptive Mood Dysregulation Disorder
- Premenstrual Dysphoric Disorder
- Substance/Medication-Induced Depressive Disorder
- Depressive Disorder Due to Another Medical Condition
- Other Specified Depressive Disorder
- Unspecified Depressive Disorder

Bipolar and Related Disorders (DSM-5)

- Bipolar I & II Disorders
- Cyclothymic Disorder
- Substance/Medication-Induced Bipolar and Related Disorder
- Bipolar and Related Disorder Due to Another Medical Condition

Mood/Affect?!
Affect/Mood?!
Confusing terms !!

Mood is the *sustained* and *pervasive* feeling tone that influences a person's behavior and perception of the world. It is *internally* experienced. Mood can be normal, depressed, or elevated.
Affect is the person's *present* transient emotional state. *It represents the external* expression of mood.

Subjective affect: one's verbal expression of

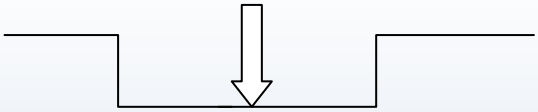
Objective affect: observer's evaluation of expression of affect, through nonverbal signs; facial expression, eye contact, tone of voice, posture & movements.

Episodes / Disorders! , These terms should not confuse me.

Episodes (discrete periods of abnormal mood; low, high, or mixed mood)

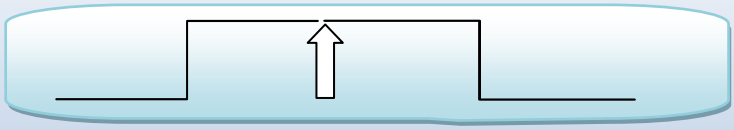
1.Major depressive episode (MDE):

≥ 2 weeks of low mood/loss of interest + other features



2.Manic episode:

≥ 1 week of elevated, expansive, or irritable mood + other features



3.Mixed episode:

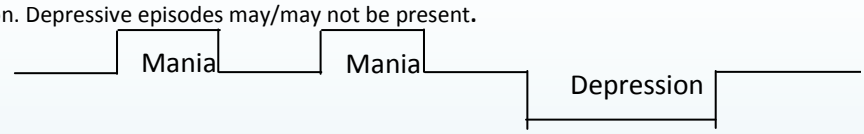
≥ 1 week of both depressed and manic mood + other features

4.Hypomanic episode:

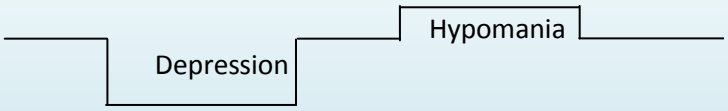
≥ 4 days less severe elevated mood + other features -----  --------

Disorders (longitudinal view / diagnostic term)

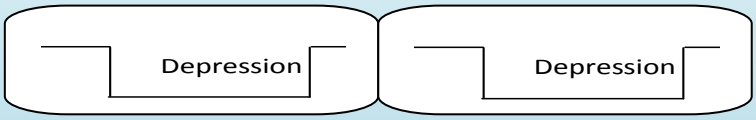
1.Bipolar I disorder: patient has met the criteria for a full manic or mixed episode, usually sufficiently severe to require hospitalization. Depressive episodes may/may not be present**.**



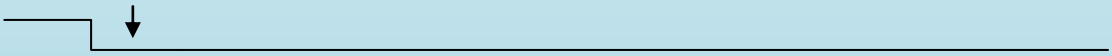
2.Bipolar II disorder: patient has at least one major depressive episode and at least one hypomanic episode, but ***NO*** manic episode.



3.Major depressive disorder (MDD): patient has major depressive episodes (MDEs) but no manic or hypomanic episodes.



4.Dysthymic disorder: ≥ 2 year-history of chronic less severe low mood.



5.Cyclothymic disorder: Less severe bipolar mood disorder with continuous mood swings; alternating periods of hypomania and moderate depression**.**

Majed, what is Ms. Amal's condition?

Well, Badr, I think she has **MDE**, which can be a presentation of **MDD, Bipolar I or Bipolar II disorders.**

Uhhaa ! this means MDE≠MDD. Okay, how one would proceed in such a case?

Take a detailed past psychiatric history especially **previous manic, mixed, or depressive episodes.**

This is very essential in such a case.

Why?

Not only to reach a proper **diagnosis** , but also to **treat her properly.** If she had previous manic or mixed episodes and you treat her with **antidepressants** without careful observation she may **swing into a manic or a mixed episode** with serious behavioral problems.

Major Depressive Episode (MDE)

A. ≥ 5 of the following symptoms have been present during the same **2-week period** and represent a change from previous functioning; at least one of the symptoms is either no.1 or no.2:

1. Low mood. 2. Loss of interest in pleasurable activities (anhedonia).
3. Appetite or body weight change (increased or decreased).
4.Insomnia or hypersomnia**. 5**. Psychomotor agitation or retardation.
6. Fatigue or loss of energy. **7.** Feelings of worthlessness or excessive guilt.
8. Diminished concentration. **9.** Recurrent thoughts of death or suicide.

B. Significant distress or impairment in functioning.

C. The symptoms do not meet criteria for a mixed episode.

D. Not due to substance abuse , a medication or a medical condition(e.g., hypothyroidism).

Depressive features; range / analysis

Appearance & Behavior:
Neglected dress and grooming.
Facial appearance of sadness:
Turning downwards of corners of the mouth.
Down cast gaze**/**tearful eyes/reduced rate of blinking.
Head is inclined forwards.
Psychomotor retardation (in some patients agitation occurs):
Lack of motivation and initiation.
Slow movements**/**slow interactions.
Social isolation and withdrawal.
Delay of tasks and decisions.

Biological Features (Neuro-vegetative Signs): Change in appetite (usually reduced but in some patients increased).
Change in sleep (usually reduced but in some patients increased)
Early morning (terminal) insomnia; waking 2 - 3 hours before the usual time, this is usually associated with severe depression.
Change in weight (usually reduce but may be increased).
Fatigability, low energy level (simple task is an effort). Low libido and /or impotence. Change in bowel habit (usually constipation).
Change in menstrual cycle (amenorrhea).
Diurnal variation of mood (usually worse in the morning).
Several immunological abnormalities (e.g. low lymphocytes) increasing the risk to infection.

Mood (Affective) Changes:
Feeling low (more severe than ordinary sadness).
Lack of enjoyment and inability to experience pleasure (anhedonia).
Irritability /Frustration/Tension

Cognitive Functions & Thinking:
Subjective poor attention, concentration and memory.
In elderly this may be mistaken as dementia ***(pseudo dementia***).
Depressive cognitive triad (pessimistic thoughts) as suggested by Beck;
Present: patient sees the unhappy side of every event (discounts any success in life, no longer feels confident, sees himself as failure). *Past*: unjustifiable guilt feeling and self-blame. *Future*: gloomy preoccupations; hopelessness, helplessness, death wishes (may progress to **suicidal ideation and attempt**).

Psychotic Features Associated with Severe Depression.

A. Hallucinations (mood-congruent)

1. Usually second person auditory hallucinations (addressing derogatory repetitive phrases).
2. Visual hallucinations (e.g. scenes of death and destruction) may be experienced by a few patients.

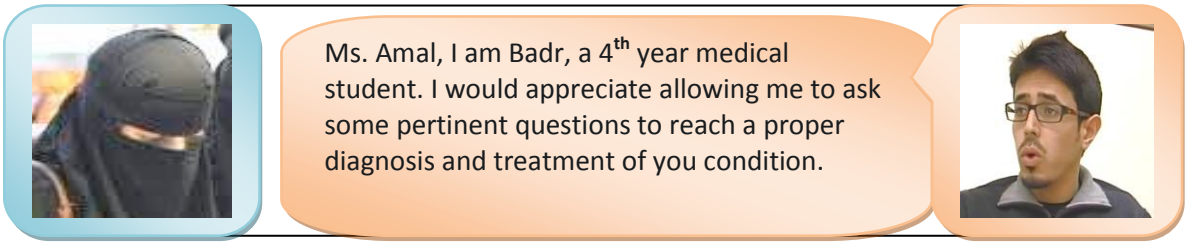
B. Delusions (mood-congruent)

1. Delusion of **guilt** (patient believes that he deserves severe punishment).
2. **Nihilistic** delusion (patient believes that some part of his body ceased to exist or function, e.g. bowel, brain…).
3. Delusion of **poverty** and impoverishment.
4. **Persecutory** delusion (patient accepts the supposed persecution as something he deserves, in contrast to schizophrenic patient).

Diagnostic Criteria for Major Depressive Disorder (MDD)

A. Presence of major depressive episode (s).
B. Not better accounted for by schizoaffective disorder and is not superimposed on schizophrenia, schizophreniform disorder, delusional disorder, or psychotic disorder not otherwise specified.
C. There has never been a manic episode, a mixed episode, or a hypomanic episode.

If the full criteria are currently met for a major depressive episode, specify its current clinical status and/or features:
Mild, moderate, severe without psychotic features/severe with psychotic features
Chronic - With catatonic features - With melancholic features
With atypical features - With postpartum onset



What to assess	How to assess
MDE	1. Do you feel marked low mood most of the day for ≥ 2-week period? 2. Do you feel markedly diminished interest or pleasure during the same 2-week period? 3. Do you feel markedly decreased appetite in nearly every day and significant weight loss, when not dieting? Or weight gain. 4. Do you feel markedly disturbed sleep (insomnia or hypersomnia) nearly every day? 5. Do you feel marked fatigue or loss of energy nearly every day? 6. Do you experience feelings of worthlessness or excessive guilt?
MDD / Bipolar MD	1. Have you ever had any similar episode in the past? When/what/for how long/how was it treated? 2. Have you ever had any period of elevated, expansive, or irritable mood? When /for how long/how was it treated?

☐ **Differential Diagnosis of Major Depressive Disorder (MDD) :**

- Depression secondary to ***medical diseases***:

- Hypothyroidism - Diabetes mellitus - Cushing's disease - Parkinson's disease.
- Stroke; see post stroke depression (PSD) p 46.
- Carcinoma (especially of the pancreas and lungs).
- Autoimmune diseases; SLE, multiple sclerosis.

- Depression secondary to ***medications:***

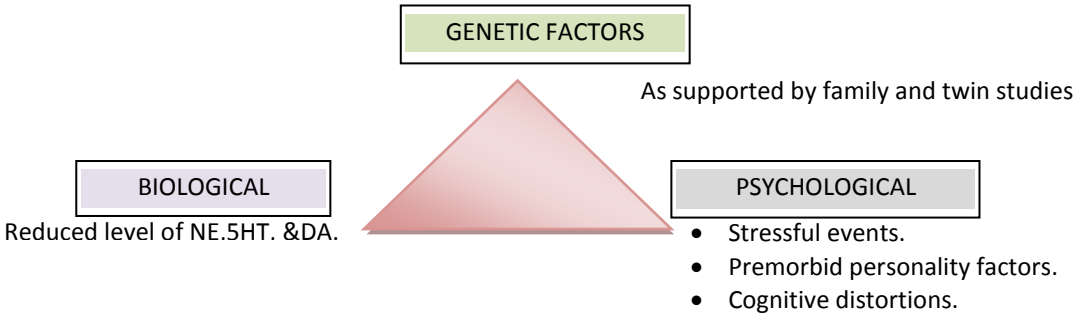
- Antihypertensives (e.g. beta-blockers, methyldopa, reserpine & Ca-channel blockers).
- Steroids.
- Bromocriptine & L - dopa.
- Indomethacin.
- Isotretinoin (Roaccutane); treatment of acne.
- Progestin-containing contraceptives (compared to estrogen-containing contraceptives, which can reduce depression risk).
- Tamoxifen (estrogen-receptor antagonist used in breast cancer): it may induce depression that can be difficult to treat with antidepressants.
- Chemotherapy agents e.g. vincristine, interferon (may induce severe depression with suicidal ideas).
- Antipsychotics.

- Depression secondary to ***substance abuse*** (upon discontinuation of stimulants / cannabis).

- **Psychiatric disorders**:
  - Dysthymic disorder (chronic& less severe depression- see later-).However, both may occur together; dysthymic disorder complicated by major depressive episodes ***(double depression***).
  - Adjustment disorder with depressed mood (see later).
  - *Schizophrenia, schizoaffective disorder.*
  - Somatization disorder
  - Anxiety disorder.

Etiology of MDD:

The causative factors are multifactorial (interacting together);



Epidemiology of Major Depressive Disorder (MDD)

- It is more prevalent than bipolar mood disorder (more in women).
- Lifetime risk is in the range of 10 - 15 %.
- Lifetime prevalence is in the range of 15 - 25 %.
- The mean age of onset is about 40 years (25 - 50 years).
- It may occur in childhood or in the elderly.
- In adolescents, it may be precipitated by substance abuse.
- More common in those who lack confiding relationship (e.g. divorced, separated, single…).

☐ Management of Major Depression: Bio-Psycho-Social Approach.

Hospitalization is indicated for:

- Suicidal or homicidal patient.
- Patient with severe psychomotor retardation who is not eating or drinking (for ECT).
- Diagnostic purpose (observation, investigation…).
- Drug resistant cases (possible ECT).
- Severe depression with psychotic features (possible ECT).

Electroconvulsive therapy (ECT):. The effect of ECT is best seen in severe depression especially with marked biological (neurovegetative), suicidal and psychotic features. It is mainly the speed of action that distinguishes ECT from antidepressant drug treatment. In pregnant depressed patient ECT is safer than antidepressants.

Psychosocial: Supportive therapy. Family therapy. Cognitive-behavior therapy- CBT- ; for less severe cases or after improvement with medication (see later;)

Prognosis of Unipolar Depressive Disorders; About 25 % of patients have a recurrence within a year. Ten percent will eventually develop a manic episode. A group of patients have chronic course with residual symptoms and significant social handicap.

Antidepressants have proven to be very useful in the treatment of severe depression. They shorten the duration in most cases (see antidepressants later).

- **Avoid Tricyclics / Tetracyclics in suicidal patient because of cardiotoxicity in overdose.**

- Selective Serotonin Reuptake Inhibitors **(SSRIs**) e.g. fluoxetine, paroxetine.

-Selective serotonin – Norepinephrine Reuptake Inhibitors **(SNRIs)** e.g. venlafaxine, duloxetine. Other new agents e.g. mirtazapine.

- Desirable therapeutic antidepressant effect requires a period of time, usually 3-5 weeks. Side effects may appear within the first few days.
- After a first episode of a unipolar major depression, treatment should be continued for six months after clinical recovery, to reduce the rate of relapse.
- If the patient has had two or more episodes, treatment should be prolonged for at least a year after clinical recovery to reduce the risk of relapse.
- Lithium Carbonate can be used as prophylaxis in recurrent unipolar depression.

Post-partum Depression

– About 10 - 15 % recently delivered women develop disabling depression within 6 weeks of childbirth (10–14 days after delivery) which if not treated may continue for six months or more and cause considerable family disruption. It is associated with increasing age, mixed feelings about the baby, physical problems in the pregnancy and prenatal period, family distress and past psychiatric history.
– Depressed mood may be associated with irritability, self-blame and doubt of being a good mother, excessive anxiety about the baby's health and death wishes.
– Counseling, additional help with child-care may be needed. Antidepressants or ECT are indicated if there are biological features of depression.

DYSTHYMIC DISORDER (*Persistent Depressive Disorder* in DSM-5)

- Dysthymia (ill-humored) was introduced in 1980 and changed to dysthymic disorder in DSM-IV.
- It was also called "**depressive neurosis**" and "**neurotic depression**" compared to major depression (psychotic or endogenous depression)
- Dysthymic disorder is a chronic depressed mood that lasts most of the day and presents on most days.

Diagnostic Criteria

- ≥ 2 years history of chronic low mood.
- No remission periods more than two months.
- During low mood there should be ≥ 2 out of the following:

2. low energy or fatigue.
3. low self-esteem.
4. feeling of hopelessness.
5. insomnia (or hypersomnia).
6. poor appetite (or overeating).
7. poor concentration or difficulty in making decisions.

- Not better accounted for by any other psychiatric or medical diseases (e.g. major depression, hypothyroidism).
- It leads to impairment in functioning or significant distress.

Differential Diagnosis

This is essentially identical to that of major depression. However, two disorders require consideration:

1. Chronic Fatigue Syndrome / Neurasthenia
• Disabling chronic fatigue of uncertain etiology associated with variable extent of somatic and / or psychological symptoms.
2. Recurrent Brief Depressive Disorder:
Brief (less than two weeks) periods during which depressive features are present with greater severity than that of dysthymic disorder. The course is episodic and recurrent.

Treatment: The most effective treatment is the combination of pharmacotherapy and cognitive or behavior therapy (CBT).

A. Pharmacological:
Selective serotonin reuptake inhibitors (SSRI).
Selective serotonin – Norepinephrine Reuptake Inhibitors(SNRIs) e.g. venlafaxine,duloxetine.
Or Monoamine oxidase inhibitors (MAOI). Avoid combining with SSRI or tricyclic antidepressants.
These groups may be more beneficial than tricyclic drugs in the treatment of dysthymic disorders.

3. Psychological:
Supportive therapy.
Cognitive therapy; to replace faulty negative self-image, negative attitudes about self, others, the world, and the future.
Behavior therapy; to enable the patient to meet life challenges with a positive sense by altering personal behavior through implementing positive reinforcement.

Course and Prognosis

The onset is usually insidious before age 25; the course is chronic. Some patients may consider early onset dysthymic disorder as part of life. Patients often suffer for years before seeking psychiatric help.

About 25 percent never attain a complete recovery

ANTIDEPRESSANTS

Antidepressants have therapeutic effects in depressive disorders but do not elevate mood in healthy people (they are not mood elevators in healthy people but may precipitate mood elevation in patients who have predisposing factors to mood disorders). They are usually commenced in small doses, which are then increased gradually (to reduce the risk of side effects). Sudden withdrawal may lead to restlessness, insomnia, anxiety and nausea. Antidepressant action may take 2-4 weeks to appear. They have to be continued for several months (six months is a usual period) after symptoms have been controlled, to avoid relapse. Some patients may require long treatment (years).

Selective-Serotonin- Reuptake Inhibitors (SSRIs):

E.g. paroxetine (seroxat), fluoxetine (prozac), citalopram (cipram), escitalopram (cipralex), sertraline (lustral), fluvoxamine (faverin). Selectively inhibit serotonin reuptake into presynaptic neurons. No significant interactions with muscarinic, or histaminergic receptors. Relatively safe in overdose.

- **Uses :**
  - Depressive disorders.
  - Anxiety, phobia & panic disorders.
  - Obsessive compulsive disorder.
  - Trichotillomania.
  - Tic disorders.
  - Premature ejaculation.
  - Others.

- **Side Effects:**
  - Gastrointestinal upset, nausea, reduced appetite, diarrhea / constipation.
  - Headache/ irritability/sweating/fine tremor.
  - Sexual dysfunction (delayed orgasm).
  - Insomnia (mainly with Fluoxetine).
  - Sedation (mainly with Fluvoxamine).
  - Withdrawal syndrome (mainly with paroxetine).
  - **Serotonin syndrome**; Rare but serious S/E. It is due to combination of a number of drugs that potentiate brain serotonin function. The most common combination is MOAIs (which inhibit the catabolism of serotonin) with SSRIs, clomipramine and fenfluramine. **Features**; myoclonus, nystagmus, tremor, irritability, confusion, and hyperpyrexia. **Treatment;** Stop Rx and support vital signs.

Selective-Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs):

E.g. Venlafaxine (Effexor-Efexor), desvenlafaxine (Pristiq), duloxetine (Cymbalta).

***Venlafaxine*(Efexor)** has a potential to induce **higher rates of remission in depressed patients** than do the SSRIs. This difference of the venlafaxine advantage is about 6 %. The most common **adverse reactions** are dry mouth, nausea, anorexia, somnolence, dizziness, nervousness, constipation, asthenia, anxiety, blurred vision, abnormal ejaculation or orgasm, erectile disturbances, and impotence. Sweating is also more common with venlafaxine than the SSRIs. Venlafaxine can cause an increase in diastolic BP, but this was seen more often in patients treated with doses of venlafaxine **>** 225 mg /day. ***Desvenlafaxine*(Pristiq) has fewer and less troublesome side effects than venlafaxine.**

Mirtazapine (Remeron)

It increases both NE and 5HT through a mechanism other than reuptake blockade. It is effective for the treatment of depression. It is often combined with SSRIs or venlafaxine to augment antidepressant response or counteract serotonergic side effects of those drugs, particularly nausea, agitation, and insomnia.

Advantages: It is highly sedating, making it a reasonable choice for use in depressed patients with severe or long-standing insomnia. No significant pharmacokinetic interactions with other antidepressants and more likely to reduce rather than cause nausea and diarrhea (the result of its effects on serotonin 5-HT_3 receptors). No effect on sexual functions. **Side effects:** increased appetite, weight gain, and sedation.

Bupropion (Wellbutrin); Norepinephrine and dopamine reuptake inhibitor.
Used as an antidepressant monotherapy, but a significant percentage of its use occurs as add-on therapy to other antidepressants, most commonly SSRIs (it counteracts sexual side effects, sedation, wt. gain).
Advantages: no significant drug-induced orthostatic hypotension, weight gain, daytime drowsiness, withdrawal syndrome or anticholinergic effects.
Side effects: dry mouth, constipation, weight loss, and hypertension in some patients.

Old antidepressants:

Tricyclic Antidepressants (TCAs)

E.g. Amitriptyline, imipramine, clomipramine.

They are of proven effectiveness and commonly used though they have many side effects. They are generally less expensive than other antidepressants.

Uses:

- Depressive disorders.
- Anxiety, phobic disorders and panic disorders.
- Obsessive compulsive disorders (*clomipramine* in particular because it regulates serotonin in the CNS).
- Nocturnal enuresis (imipramine in particular).
- Pruritis (H_1 blockade e.g. doxepin).
- Gastric ulcer (H_2 blockade e.g. amitriptyline)

Side Effects:

- Anticholinergic: constipation, urinary retention, dry mouth , impaired visual accommodation, worsening of glaucoma central anticholinergic toxicity(delirium)
- Antiadrenergic (alpha-receptors):Postural hypotension, delayed ejaculation and drowsiness
- **Others:** sweating, weight gain, arrhythmia, tremor, precipitation of mania in susceptible patients.

- If a patient has insomnia, a sedative tricyclic antidepressant (e.g. amitriptyline or doxepin) is preferred.
- Tricyclics are **dangerous** in overdose and should be avoided with **suicidal patients.**

Monoamine Oxidase Inhibitors (MAOIs)

Because of their serious interactions with tyramine – containing foodstuffs and other drugs, they are almost obsolete nowadays and seldom used as first choice drugs. They have been found effective in patients who have not responded to other antidepressants, those with atypical depression and in patients with phobic and panic disorders. Narcolepsy is another indication.
They should not be given to patients who cannot understand or comply with dietary restrictions.
Side effects:

- Dry mouth/urinary retention/constipation.
- Postural hypotension.
- Sexual dysfunction.
- Headache/ Dizziness/ Tremor.
- Sleep disturbances.
- Weight gain
- Ankle edema.
- Hepatotoxicity.
- Hypertensive crisis.

Patients already on MAOIs should not be started on another type of antidepressant (except in resistant cases, under supervision of a psychiatrist). At least a two- week interval should separate the last dose of any MAOI and initiation of tricyclic or SSRI therapy.

Precautions and Contraindications :

Liver failure. cardiac disease, acute confusional states, Pheochromocytoma, and conditions that require patient to take any of the drugs which interact with MAOIs

Moclobemide (Reversible Inhibitors of Monoamine Oxidase – A "RIMA"

It has clear advantages over conventional MAOIs due to its freedom from tyramine reactions and its quick offset of activity. It is better tolerated than conventional MAOIs or tricyclics.
Side effects include nausea and insomnia.
It must not be combined with SSRI or clomipramine.

SUICIDE (international self-murder) Sui: self, Cide: murder

Ms. Amal's mother reported that; Amal sometimes experiences death wishes, and suicidal ideation.

Common Underlying Factors: Depressive disorder- Substance abuse - Schizophrenia - Personality disorder - Serious chronic physical disease - Social isolation and lack of support - Financial problems

Suicide Methods: Hanging / Shooting / Burning / Poisoning/Rushing in front of running vehicles/Jumping from high places.

Who requires suicide evaluation? Any patient who

- has recently attempted suicide.
- presents with suicidal ideation.
- reveals suicidal ideas only when asked.
- has behavior indicating possible suicidality.

Risk Factors for Suicide: These risk factors should be recognized, assessed and utilized in conjunction with careful clinical assessment in deciding the suicidality of a patient.

1. Age > 45 years old.
2. Male > Female.
3. Separated, divorced, widow > single > married.
4. Previous suicide attempts or behavior.
5. Family history of suicide behavior.
6. Current psychopathologic conditions: Severe depression/Substance abuse/Psychosis/Personality disorder
7. Concurrent serious or chronic medical condition.
8. Lack of social support.
9. Suicide note.
10. Planning with precautions against discovery.
11. Strong intent to die.

Assessment of Suicide Risk

1. **Evaluation of intentions:** Asking about suicidal intentions is very important. It will not make suicide more likely. Sympathetic approach, which also helps the patient feel better understood and hence may reduce the risk of suicide. Systematic enquires (thought/feeing >> intention >> act): Thoughts whether life is worth living/ hopeless towards the future >> any wishes to die >> suicidal ideation >> suicidal intent >> suicidal specific preparatory acts (e.g. planning with precautions against discovery) >> actual suicidal trial.

2. **History of intentional self-harm.** Serious deliberate self-harm. Repeated dangerous attempts. Continuing wish to kill or harm self. Writing a farewell suicidal note.

3. **Presence of mental disorders:** Severe depression with guilt feelings hopelessness and helplessness. Depressed patient may not be able to plan and commit suicide while severely depressed. However, it was found that suicide might occur during recovery from severe depression. Schizophrenia: on recovery from acute phase or in chronic schizophrenic illness. Substance abuse with psychiatric and physical complications. Personality disorders (e.g. borderline personality disorder; these patients have poor impulse control and chronic emotional instability).

4. **Presence of adverse social and medical conditions:** Social factors (e.g. home, work, finances…) should be assessed. Medical problems (especially if they are painful disabling or rapidly deteriorating in spite of medical interventions).

5. **Presence of homicidal ideation:**
   E.g. to kill the spouse, children or parents, in order to spare them intolerable suffering after committing suicide (some severely depressed suicidal patients have homicidal ideas).

youtube.com/watch?v=IkA7TN44Q2Q

youtube.com/watch?v=bXefWSTZ74U

Management of suicide :

- Proper assessment of suicidal risk.
- Every suicidal ideation, impulse, gesture or attempt should be taken seriously.
- Hospitalization: for patients with serious suicidal risk.
  - Prevent access to all means of harm (sharp objects, ropes, drugs…). Search the patient thoroughly.
  - Appropriate close one to one observation: vigilant nursing staff with good communication.
  - Treat any psychiatric disorder (**ECT**/ antidepressants/ antipsychotics)

If the risk does not seem to require hospitalization:

- Counseling /Problem solving/Ensure good support &positive view of the future.
- Relatives: responsible, reliable and understanding.
- Treat underlying psychiatric condition and keep regular follow up visits.

For only limited periods suicidal persons remain suicidal, thus the value of early detection and restrain.

Whatever carefully the correct procedures have been followed, some patients commit suicide.

PARASUICIDE; إيذاء الذات بما دون القتل

PARASUICIDE; also called: "Attempted suicide" & "Non-fatal deliberate self-harm".

Definition: any act of self-damage carried out with the apparent intention of self- destruction; yet ineffective, half-hearted and vague.

- **Etiology**:
  - Impulsive behavior: seen commonly in borderline personality disorder.
  - Unconscious motives: to influence others, a signal of distress or a cry for help seen commonly in histrionic personality disorder.
  - Failed suicide: 25 % of cases.
  - Risks Factors: young (15 – 35 years), commoner in females, personality problems (e.g. borderline personality disorder) and Situational stress (e.g. arguments with parents, spouse…).
- **Methods**:
  - Drugs overdose (e.g. paracetamol) is the most common method.
  - Self-injury e.g. laceration of wrist.
  - Jumping from heights.
- **Management:** each case should be assessed thoroughly;
  - Thoughts /intentions /plans /psychosocial stresses /personality problems /available support/possibility of repetition
- Treat any psychiatric disorder
  - Inpatient or outpatient depending on the case.
- Problem solving and counseling
  - To resolve current difficulties.
  - To deal better with future stresses.
- Prolonged follow up is required for some cases who are at risk of repetition of self-harm and suicide those with personality disorders and long-term adverse psychosocial situations.

youtube.com/watch?v=KY7GKUD31UY

Ms. Amal's sister reported that; Amal had a distinct period of irritable and euphoric mood 4 years ago for 5 weeks with tremendous energy, hyperactivity, and reduced sleep.

(نوبة الهوس) Manic Episode

A. A distinct **period** of abnormally and persistently elevated, expansive, or irritable mood, lasting at least **1 week.**
B. **B**. During the period of mood disturbance **≥ 3** of the following (4 if mood is irritable):

1. Inflated self-esteem or grandiosity. **2.** Decreased need for sleep.
3. Pressured speech. **4.** Racing thoughts or flight of ideas.
5. Distractibility (reduced concentration).
6. Increase in goal-directed activity (socially, at work, or sexually).
7. Excessive involvement in pleasurable activities that have a high potential for p
engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).
C. The symptoms do not meet criteria for a mixed episode**.**
D. Significant distress or impairment in functioning.
E. Not due to substance abuse, a medication or a general medical condition (e.g., hyperthyroidism).
Note: Manic-like episodes that are clearly caused by antidepressant treatment should not count toward a diagnosis of bipolar I disorder.

youtube.com/watch?v=zA-fqvC02oM

Psychotic features may occur in severe cases of mania:
A.Mood - congruent hallucinations; e.g. voices talking to the patient about his special powers. Occasionally visual hallucinations (e.g. seeing Angels).
B.Mood-congruent delusions; usually grandiose delusions (e.g. being a prophet, a prince …), Patients with delusional disorder (grandiose type) have long-lasting grandiose delusions but no manic features; pressure of speech, racing thoughts, flight of ideas e.t.c. Some manic patients develop delusions of persecutions or of reference.

Hypomanic vs. manic episode:

		Hypomanic episode	Manic episode
1	**Minimum Duration**	4 days	7 days
2	**Severity**	Not severe enough to cause marked impairment in social or occupational functioning	Causes severe impairment in social or occupational functioning.
3	**Features**	No psychotic features (hallucinations/delusions)**.**	May have psychotic features.
4	**Diagnosis**	Bipolar II disorder	Bipolar I disorder
5	**Management**	Does not require hospitalization	Usually necessitates hospitalization to prevent harm to self or others.

Mixed Episode

≥ 1 week of both manic and depressive symptoms **occurring simultaneously** nearly every day (e.g. overactive overtalkative patient may have at the same time profound depressive thoughts including suicidal ideas) **>>> Bipolar I disorder**.

Alternating Affective Sates

Manic and depressive features **follow one another** in a sequence of rapid changes in a short time (e.g. a manic patient may be intensely depressed for few hours and then quickly becomes manic) **>>> Bipolar I disorder**.

Etiology of mood disorders?!

What neurotransmitters are involved in mood regulation?

Norepinephrine (NE), Serotonin (5HT), and Dopamine (DA) - for details see chapter 1, Basic Psychiatry. Remember, the etiology of mood disorders, like other psychiatric disorders, is **multifactorial;**
Bio - Psycho-Social

Genetic: one parent with bipolar I >25 % chance of mood disorder in child.
Two parents with bipolar I > 50 % chance of mood disorder in child. Concordance rates for monozygotic twins are approximately 75%, and rates for dizygotic twins are 5 to 25%. Some studies found some defects in chromosomes 5, 11 and X.

Neurochemical: disturbance in biogenic amines (norepinephrine, serotonin, and dopamine).

Psychosocial: psychosocial stresses may trigger manic or mixed episode in a vulnerable persons.

Manic-like episodes may be induced by;

A. Medications; e.g. steroids , antidepressants.
B. Medical diseases; e.g. Hyperthyroidism, SLE, Multiple sclerosis.
C. Substance abuse; e.g. stimulants.

Bipolar I Disorder (It was known as **manic-depressive disorder).**
Patient has met the criteria for a full manic or mixed episode, usually sufficiently severe to require hospitalization. Depressive episodes may/may not be present (episodes of major depression are ***not*** required for the diagnosis). However, most patients with bipolar I disorder experience MDE and manic or mixed episodes (20% of patients experience only manic episodes).

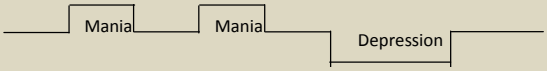
Epidemiology: onset usually 18-30 years. Lifetime prevalence: 1% . ♂ = ♀.

Bipolar I Disorder, <u>Single</u> Manic Episode

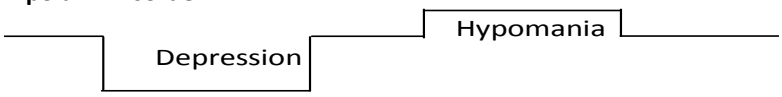
Patients who are having their first episode of bipolar I disorder MDE cannot be distinguished from patients with MDD. Thus, according to DSM-IV-TR, patients must be experiencing their ***first*** manic episode to meet the diagnostic criteria for bipolar I disorder (Bipolar I Disorder, ***Single*** Manic Episode).

Bipolar I Disorder, <u>Recurrent</u>

When there are other episodes (whether manic, mixed, or MDE) after the first manic episode, DSM-IV-TR specifies diagnostic criteria for ***recurrent*** bipolar I disorder. Recurrent bipolar I disorder is specified based on the symptoms of the most recent episode: bipolar I disorder, most recent episode manic; hypomanic; depressed; or mixed.
Manic episodes are considered distinct when they are separated by at least 2 months without significant symptoms of mania or hypomania. Between manic episodes, there may be interspersed normal (euthymic) mood or MDEs.



Bipolar II Disorder



Patient has at least one major depressive episode and at least one hypomanic episode, but ***no*** manic episode. If there has been a full manic or mixed episode even in the past, then the diagnosis is bipolar I disorder, **not** bipolar II. Features are not better accounted for by schizoaffective disorder and are not superimposed on schizophrenia, schizophreniform disorder, delusional disorder. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Epidemiology; onset usually 18- 30 years. Lifetime prevalence: 0.5%. Slightly more common in **women**.

SEASONAL AFFECTIVE DISORDER

Recurrent major depressive episodes that come with shortened day light in winter and disappear during summer (may be followed by hypomania). Absence of clear-cut seasonally changing psychosocial variables. Characterized by atypical features of depression: hypersomnia, hyperphagia (carbohydrate craving), weight gain, increased fatigue. Related to abnormal melatonin metabolism. Treated with exposure to light (artificial light for 2 – 6 hours a day).
It may occur as part of bipolar I or II disorders.

Rapid Cycling Bipolar I or II Mood Disorders

≥ 4 alternating mood episodes (MDE, Manic, Hypomanic or Mixed) in the previous 12 months, separated by intervals of 2-3 days. It is usually more chronic than non-rapid cycling disorders.
Around 80 % are lithium-treatment failures. Carbamazepine and sodium valproate are usual agents of choice.

CYCLOTHYMIC DISORDER

Less severe bipolar mood disorder with continuous mood swings; alternating periods of hypomania and moderate depression. It is non-psychotic chronic disorder. It starts in late adolescence or early adulthood. The treatment is similar to that of bipolar mood disorder.

Mood disorders vs. Schizoaffective Disorder.

To differentiate mood disorder with psychotic features from schizoaffective disorder patient with schizoaffective disorder has either major depressive episode, manic episode, or mixed episode during which criteria for schizophrenia are also met. There should be delusions or hallucinations for at least two weeks in the absence of prominent mood symptoms. Schizoaffective disorder can be either depressive type or bipolar type.
Course and prognosis is between that of schizophrenia and of bipolar mood disorder.
Treatment includes hospitalization, antipsychotics, mood stabilizers (lithium is a good choice) and antidepressants when needed._ Symptoms not due to general medical condition or drugs.

Course and Prognosis of bipolar disorders

If left untreated, most manic episodes will resolve within 8 -12 weeks (rarely last longer than 24 weeks). The risk of recurrence is particularly high (50 %). About 80 % of manic patients eventually experience a full depressive episode. About 50 % will have multiple relapses with good interepisodic functioning. Chronic deterioration may occur in up to 30 % of bipolar patients. The prognosis is much better than schizophrenia, but there is a wide variation; some people having their lives repeatedly disturbed, whilst others experience only a single episode. Some individuals have years of normal functioning between episodes. Others have episodes in clusters. Some patients have rapidly cycling episodes. As the disorder progresses, the time between episodes often decreases. After about five episodes, however, the interepisodic interval often stabilizes at 6 - 9 months. Patients with bipolar I disorder have a poorer prognosis than do patients with major depressive disorder.

Treatment of Bipolar Mood Disorder

Short-term treatment (for acute manic or mixed episode):

Manic behavior can be damaging for the patient and others (e.g. loss of career, financial disaster, and sexual insult).
Hospitalization can provide a secure, protective environment. The initial task is to quieten the agitation that commonly occurs. This is usually accomplished with **antipsychotic medication**; typical (e.g. haloperidol 10 - 20 mg or chlorpromazine 400-800 mg) or atypical (e.g. olanzapine 10-20 mg, or risperidone 4-8 mg). They reduce psychotic symptoms and over-activity. Thus, they bring the acute symptoms of mania under control. Haloperidol is a potent antipsychotic, less sedative and causes less postural hypotension compared with chlorpromazine, which is sometimes the drug of choice in mania for its sedative property.
When the manic patient settles (usually within weeks), he can be treated as an outpatient with close observation and frequent assessment. Antipsychotics can then be reduced gradually and carefully.

Long-term treatment

Mood disorders often recur and have relapsing course, thus preventive (prophylactic) treatment is required.

Lithium has been found effective in preventing recurrence of manic-depressive episodes.

Carbamazepine appears to be as effective as lithium in the prophylaxis of bipolar mood disorder, and can be considered in patients who are intolerant of lithium or who respond poorly to lithium (e.g. rapid-cycling mood disorders).

Sodium valproate has been found effective in patients with refractory bipolar illness, even when there has been a poor response to lithium and carbamazepine. Combination of lithium with carbamazepine can be used, particularly in rapid-cycling disorders, and combination of lithium with sodium valproate has been shown to be effective in the treatment of resistant patients.

MOOD STABILIZERS

LITHIUM

Mechanism of action:
The exact mechanism is unknown, however it is thought that it stabilizes neuronal activities (decreases sensitivity of postsynaptic receptors and inhibits release of neurotransmitters). **Before starting lithium**, a note should be made of any other medications taken by the patient and a physical examination should be carried out. Prerequisite laboratory test: Renal functions and electrolytes / Thyroid functions/ ECG if cardiac disease is suspected. Pregnancy test (if indicated).

Contraindications: Renal or cardiac failure / Recent myocardial infarction / Chronic diarrhea sufficient to alter electrolytes. First trimester of pregnancy (fetal cardiac anomalies)

Lithium is not recommended in children.

Side effects:

- Fine tremor/ Gastric discomfort and diarrhea **/**Dry mouth, metallic taste /Fatigue **/**Weight gain
- Reversible hypothyroidism / Reversible nephrogenic diabetes insipidus (polyuria – polydepsia) due to blockade of ADH – sensitive adenylcyclase in distal tubules.
- **Toxicity** (course tremor, ataxia, confusion, diarrhea, vomiting…).

Drug interactions: Several drugs increase lithium concentration and may lead to Lithium toxicity: Thiazide diuretics / Non - steroidal anti – inflammatory drugs (NSAID)/Angiotension - converting enzyme inhibitors e.g. lisinopril / Haloperidol high doses (e.g. 40 mg/day). Lithium may potentiate the effect of muscle relaxants. This is important when a patient undergoes an operation or ECT. It may potentiate extrapyramidal side effects of antipsychotics. It may precipitate 5 - HT syndrome if given with SSRIs.

The recommended plasma concentrations are:

- 0.9 - 1.2 mmol / liter (during acute phase)
- 0.4 - 0.8 mmol / liter (for prophylaxis)

Dose is 300 - 450 mg twice or three times a day.
Plasma concentration requires continuous measurement because the narrow therapeutic index of lithium (therapeutic and toxic levels are close). Toxic levels ≥ 1.5 mmol / liter.
Plasma level should be measured 12 hours after the last dose.

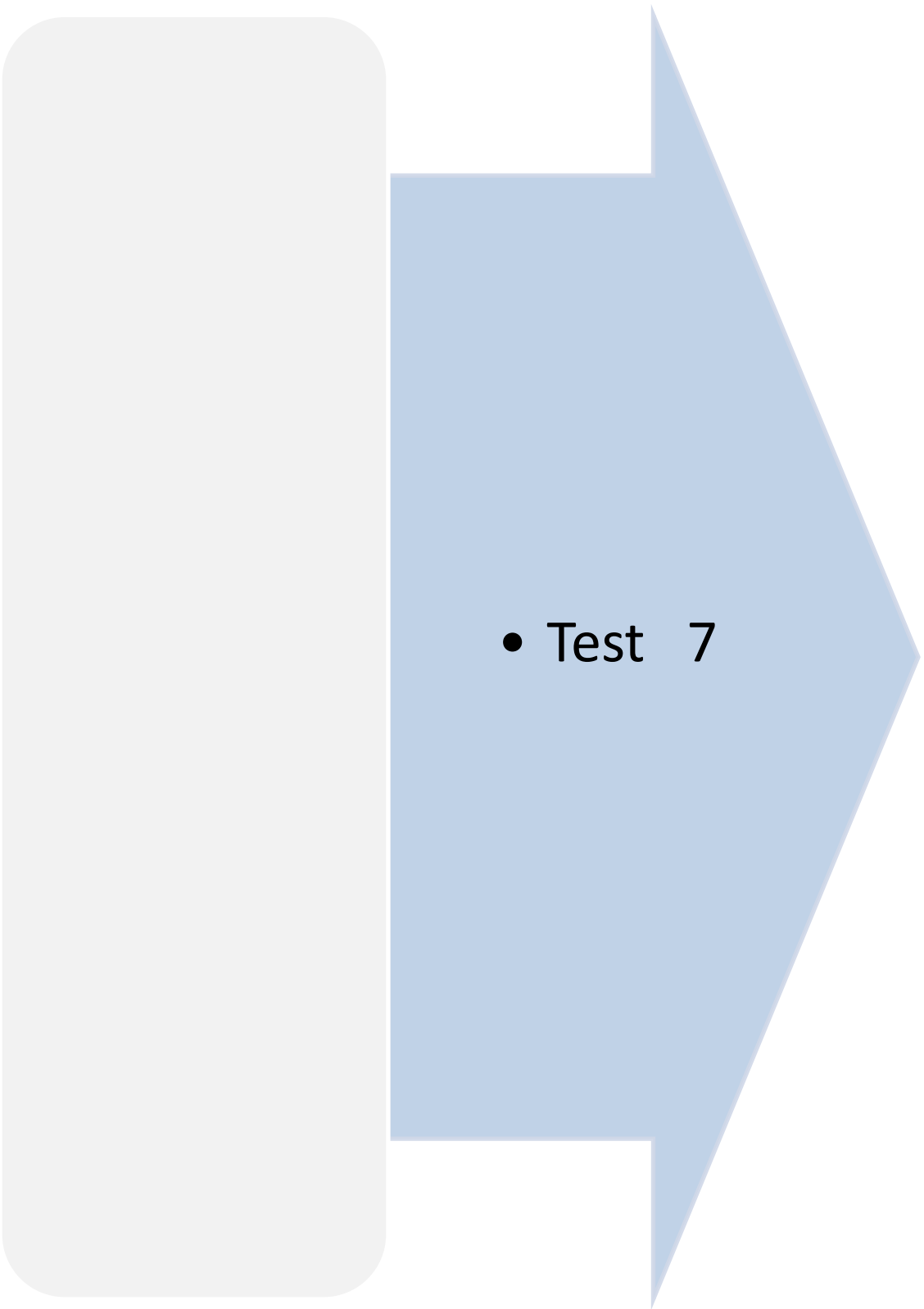
Carbamazepine (Tegretol)

Carbamazepine (Tegretol) was first used to treat epilepsy and trigeminal neuralgia. Then, it has been used for decades as a first-line agent for acute and maintenance treatment for bipolar I disorder**.** Studies suggest that carbamazepine may be especially effective in persons who are not responsive to lithium.
In acute mania: carbamazepine is typically effective within the first 2 weeks of treatment in 50 -70 % of cases.
Prophylaxis: carbamazepine is effective in preventing relapses, particularly among patients with mood disorders and schizoaffective disorders.
It is effective in controlling **impulsive and aggressive** behavior in persons of all ages who are not psychotic (e.g. borderline personality disorders, mentally retarded, head trauma Sequelae).
Doses: starting dose is usually 200 mg two times a day. (in children 100 mg / day). It can be increased gradually to 600 – 1000 mg. Therapeutic concentration for psychiatric indications is 8 – 12 ug per mil.
Side effects: It is relatively well tolerated. The most common side effects are mild and transient; Mild GI (gastric discomfort, nausea, vomiting, constipation, diarrhea, and anorexia) and CNS (sedation, drowsiness, vertigo, blurred vision and ataxia). It occasionally causes syndrome of secretion of inappropriate antidiuretic hormone (SIADH) through activation of vasopressin receptor function (hyponatremia +/- water intoxication**).**
Rarest but serious adverse effects: hepatitis, pancreatitis, serious skin reactions **(**Stevens-Johnson syndrome**),** and blood dyscrasias (agranulocytosis and aplastic anemia).
Drug Interactions: As a result of prominent induction of hepatic CYP 3A4, It decreases serum concentrations of numerous drugs (e.g. oral contraceptives, warfarin, haloperidol, valproate). When carbamazepine and valproate are used in combination, the dosage of valproate may need to be increased and the dosage of carbamazepine should be decreased, because valproate displaces carbamazepine binding on proteins.
Monitoring for a decrease in clinical effects is frequently indicated because of autoinduction.

Valproate (Depakine Depakene, Depakote): It is used for the treatment of manic episode associated with mood and schizoaffective disorders.

Doses: starting dose is usually 250 mg twice/day. It can be increased gradually to 2500 mg**/**day.
Common side effects include Mild GI (gastric discomfort, nausea, vomiting, and anorexia) and CNS (sedation, drowsiness, dysarthria, and ataxia).
Rarest but serious adverse effects; fatal hepatotoxicity, pancreatitis, and fetal neural tube defects (e.g., spina bifida) , 2-4% in women who take valproate during the first trimester of the pregnancy. Daily folic acid supplements reduce the risk of neural tube defects.

Other anticonvulsants used as mood-stabilizers: Lamotrigine (Lamictal), Topiramate (Topamax), Gabapentin (Neurontin), Pregabalin (Lyrica), Levetiracetam (Keppra), and Tiagabine (Gabitril).


• Test 7

1. A 41-year-old man presented with a 3-week-history of lack of motivation, fatigue, excessive self-blame, poor appetite, social isolation, and delaying his tasks. He has no previous history of psychiatric or medical disorders. What is the most likely diagnosis?
    a. Major Depressive Disorder, recurrent type.
    b. Dysthymic disorder.
    c. Major depressive Disorder, single episode.
    d. Depression due to underlying medical problem.

2. A 27-year-old woman has been suffering lack of enjoyment, low self-esteem, insomnia, poor concentration, and fatigue for more than 3 years. She has no medical diseases. What is the most likely diagnosis?
    a. Bipolar II mood disorder.
    b. Bipolar I mood disorder.
    c. Cyclothymic disorder.
    d. Dysthymic disorder.

3. A 28-year-old university graduate had 3 episodes of disturbed mood one of which characterized by being very energetic, and impulsive to the degree of being admitted to a psychiatry ward where he was treated with Olanzapine 10 mg daily. After discharge, he has been completely normal for the past 4 months. He does not abuse drugs and healthy otherwise. What is the most pertinent drug to add?

    a. Clozapine.
    b. Valproate.
    c. Imipramine.
    d. Alprazolam.

4. A 47-year-old businessman alcoholic for more than 10 years, has marital problems. Recently he lost 3 million SR in the stock market. He became insomniac, and agitated. He sent a message to his wife asking her to forgive him. His son brought him to Emergency Department. What is the most urgent step?

    a. Amitriptyline 50 mg.
    b. Hospitalization.
    c. Lorazepam 2mg.
    d. Reassurance and explanation.

5. A 32-year old man has a long history of a recurrent mental illness maintained on a medication that helped in reducing the number and the severity of his relapses. Three days before, he abruptly discontinued his medication upon the request of a faith- healer. Then, he developed repeated fits. The best management is:

    a. Prescribe him haloperidol 10 mg.
    b. Resume his previous medication
    c. Admit him in the psychiatric ward.
    d. Give him alprazolam 2 mg,3 times/day.

6. A 31-year-old man has been complaining of nausea, abdominal discomfort, loss of appetite, and sexual dysfunction. Three weeks before, his doctor started him on a medication for depression. The most likely medication was:

a. Lamotrigine.
b. Mirtazapine.
c. Risperidone.
d. Paroxetine.

7. A 53-year-old hypertensive man on antihypertensive medications was referred to psychiatry clinic for evaluation of loss of pleasure, poor erection, poor appetite, and disturbed sleep. The most appropriate management step:

a. Start him on paroxetine 50 mg.
b. Investigate him for hypothyroidism.
c. Review side effects of his medications.
d. Add Propranolol to his medications.

8. A 29-year-old woman noticed by her husband, over the last two weeks, to have excessive talking, overambitious ideas, tense mood, and decreased need for sleep. The most appropriate drug is:

a. Procyclidine.
b. Lithium.
c. Quetiapine.
d. Paroxetine.

9. A 26-year-old married man has a 4-year-history of tiredness, low self-confidence, lack of enjoyment, difficulty making decisions, and insufficient sleep. The most appropriate treatment is:

a. Carbamazepine.
b. Amitriptyline.
c. Electroconvulsive therapy.
d. Escitalopram.

10. A 44-year-old woman had 3 episodes of lack of motivation, fatigue, excessive self-blame, poor appetite, social isolation, and chest tightness. Each episode last for about 2 months. What is the most likely diagnosis?

a. Major depressive disorder.
b. Dysthymic disorder.
c. Bipolar mood disorder.
d. Cyclothymic disorder.

Answers:

1	**2**	**3**	**4**	**5**
C	D	B	B	B
6	**7**	**8**	**9**	**10**
D	C	C	D	A

8

Anxiety Disorders

+

OCD

+

Stress-related Disorders

- Definitions & Types
- 1-Panic Disorder.
- 2-Agoraphobia.
- 3-Social Phobia.
- 4-Specific Phobia.
- 5-Generalized Anxiety Disorder (GAD).
- -Obsessive Compulsive Disorder (OCD).
- -Acute & Post-Traumatic Stress Disorder.

Adjustment Disorders

Grief Reaction

Psychological Treatment

Anti-anxiety Medications

Definitions of Relevant Symptoms:

1. **Anxiety:** subjective feeling of worry, fear, and apprehension accompanied by autonomic symptoms (such as palpitation, sweating, and muscles), caused by anticipation of threat/danger. **Free-floating anxiety:** diffuse, unfocused anxiety, not attached to a specific danger.
2. **Fear:** anxiety caused by realistic consciously recognized danger.
3. **Panic:** acute, self-limiting, episodic intense attack of anxiety associated with overwhelming dread and autonomic symptoms.
4. **Phobia:** irrational exaggerated fear and avoidance of a specific object, situation or activity.

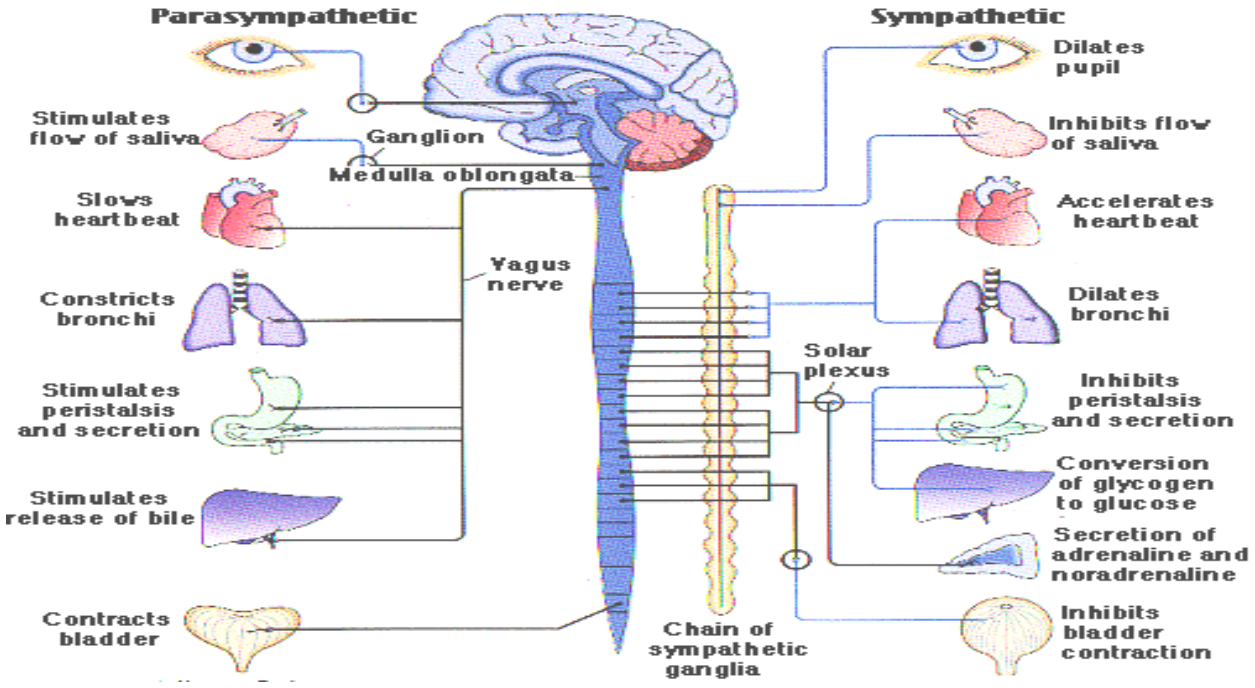
State vs. Trait Anxiety:

State anxiety (cross – sectional view): anxiety is experienced as a response to external stimuli.

Trait anxiety (longitudinal view):part of personality character in which a person has a habitual tendency to be anxious in a wide range of different circumstances.

Features of Anxiety:

Psychological	*Physical*
Excessive worries & fearful anticipation. Feeling of restlessness/irritability. Hypervigilance. Difficulty concentrating. Subjective report of memory deficit. Sensitivity to noise. Sleep: insomnia / bad dreams.	**Chest:** chest discomfort & difficulty in inhalation. **Cardiovascular**: palpitation &cold extremities. **Neurological :** tremor, headache, dizziness, tinnitus, numbness & blurred vision. **Gastrointestinal:** disturbed appetite, dysphagia, nausea, vomiting, epigastric discomfort & disturbed bowel habits. **Genitourinary:** increased urine frequency and urgency, low libido, erectile dysfunction, impotence & dysmenorrhea. **Musculoskeletal**: muscle tension, joint pain, easily fatigued. **Skin:** sweating, itching, hot & cold skin.



Mild degree of anxiety is unavoidable and is not considered abnormal.

Clues suggestive of abnormal anxiety

1- Severe/ prolonged anxiety.
2- Multiple features / beyond control.
3- Interference with functioning / relationships.
4- Worry is out of proportion to the external stimulus.
5- Attention is focused on the subjective feelings more than the external stimulus.

Anxiety disorders are a group of abnormal anxiety states not caused by an organic brain disease, a medical illness nor a psychiatric disorder.

In DSM-5 Separated in new categories :

Panic Disorder
Recurrent sudden attacks of severe fear. (اضطراب الهلع/ذعار)

Phobias
Situational anxiety with avoidance. (رُهاب) .

GAD
Prolonged nonspecific anxiety *(free-floating)*.

OCD Excessive worries due to distressing obsessions.

Acute & PTSD
Severe fear with avoidance following a life-threatening event.

Agoraphobia;
Anxiety about self-safety in crowded places.

Social phobia;
Anxiety about personal performance.

Specific phobia;
Anxiety about certain objects e.g. injections.

Panic attacks: sudden self-limited bouts of intense anxiety, with feeling of imminent doom or death and an urge to escape. Panic attacks are symptoms (not disorder) that can occur in a variety of psychiatric disorders: Panic disorder - Phobias - GAD - Acute stress &PTSD - OCD - Substance abuse - Depressive disorders & Others.

Based on the ***context*** in which the panic attacks occur. Panic attacks can be :

1. **Unexpected panic attacks:** sudden spontaneous attacks not associated with a situational trigger**.** ***Essential for the diagnosis of panic disorder.***

2. **Situationally bound panic attacks:** occur on exposure to, or in anticipation of the situational trigger, seen in phobias.

3. **Situationally predisposed panic attacks:** more likely to occur on exposure to (but are not invariably associated with) the situational trigger e.g. attacks are more likely to occur while driving.

Mr. Hadi is a 34-year-old man came to outpatient psychiatry clinic complaining of 3- month history of recurrent sudden attacks of severe fear of death, palpitation, shortness of breath, excessive sweating, and impaired concentration. The attack lasts for about 20 minutes then disappears completely. Between, the attacks, although he is free from physical symptoms, he is anticipating the next attack.

Panic Disorder

Diagnostic Criteria:

A. Recurrent sudden unexpected panic attacks.

B. At least one of the attacks has been followed by ≥ 1 month of ≥ one of the following:

1- Persistent concern about having additional attacks.

2- Worry about the implications / consequences of the attacks (e.g. going mad or death).

3- A significant change in behavior related to the attacks.

C. Not due to medical disease, substance abuse or axis **I** psychiatric disorder.

Etiology:

- Poorly regulated autonomic responses to stressors when a person becomes afraid of the consequences of symptoms of autonomic arousal.
- Pathological hyperactivity in Locus Ceruleus (alarm system in the brain essential for anxiety expression). Neurotransmitters involved are norepinephrine and serotonin.
- Genetic basis (panic disorder occurs more often among relatives).
- The biochemical hypothesis (panic attacks can be induced by chemical agents like sodium lactate, and can be reduced by drugs like imipramine).
- Mitral Valve Prolapse (MVP) is more common in patients with panic disorder (40-50 %) than in general population (6 – 20 %). Whether this association has a causal relationship, it is not clear.

Course and Prognosis:

- The usual course is chronic but waxing and waning.
- Some patients recover within weeks.
- Others have a prolonged course (those with symptoms persisting for 6 months or more).
- With therapy prognosis is excellent in most of the cases.

Epidemiology: Women > men. Lifetime prevalence is 1 – 3 % (throughout the world). One-year prevalence rates 1 – 2 %. Age at onset: bimodal distribution, with one peak in late adolescence and a second smaller peak in the mid 30s.

Panic Disorder can be either; with or without agoraphobia.

youtube.com/watch?v=E0wuys9lNp0

Treatment:

- Attention to any precipitating or aggravating personal or social problems.
- Support, ***explanation***(based on the autonomic nervous system functions, alarm system, & fight/flight response), and ***reassurance*** (that no serious physical disease behind the repeated panic attacks) .
- ***Cognitive Behavior therapy*** **(CBT)**: detection and correction of wrong thoughts & thinking process (negative cognition) about the origin, meaning, and consequence of symptoms & relaxation training.
- **Medications:** Choose one of SSRIs (selective serotonin reuptake inhibitors). All are effective for panic disorder although the most widely used is paroxetine. Imipramine or clomipramine (tricyclic antidepressants) can be a good alternative. For rapid onset of action add a benzodiazepine (usually alprazolam or lorazepam) for 2-4 weeks then taper it down slowly. SSRI (or clomipramine/imipramine) is generally continued for 6-12 months. When treatment is discontinued relapse rate is high (30-90%) even when the condition has been successfully treated. This emphasizes the role of combining psychotherapy with medications.

Mrs. Mona is a 36-year-old woman seen at outpatient clinic because of several weeks' history of excessive fear of fainting when in crowds or in situations that she cannot leave easily.

Agoraphobia

Literally, it means fear and avoidance of market places and open spaces. "**Agora**"= the open market for farmers in *Tadmur* (old Syria).

However, the term may be misleading. Fear in agoraphobic patients is about being alone in crowded places from which escape seems difficult or help may not be available in case of sudden incapacitation (places cannot be left suddenly without attracting attention e.g. a place in the middle of a row in a mosque). Fear is usually revolving around ***self-safety issues*** (fainting/losing control of behavior e.g. screaming, vomiting, or defecating) rather than *personal performance* in the presence of others (which is the case in social phobia).

Diagnostic Criteria:

- Anxiety about being in places or situations from which escape might be difficult, or in which help would not be readily available in the event of a panic attack (shopping malls, social gathering, tunnels, and public transport).
- The situations are either avoided, endured with severe distress, or faced only with the presence of a companion.
- Symptoms cannot be better explained by another mental disorder.
- Functional impairment.

youtube.com/watch?v=eCdd2ZAaXUs

Associated conditions:

- Panic disorder (in **>** 60 % of cases).
- Social phobia (in around 55% of cases)
- Depressive symptoms (in > 30 % of cases).
- As the condition progresses, patients with agoraphobia may become increasingly dependent on some of their relatives or spouse for help with activities that provoke anxiety such as shopping.
- ***Housebound-housewife syndrome*** may develop. It is a severe stage of agoraphobia when the patient cannot leave the house at all.

Etiology:

Predisposing Factors:
-Separation anxiety in childhood.
-Parental overprotection.
-Dependent personality traits.
-Defective normal inhibitory mechanisms.

Precipitating Factors:
-A Panic attack in a public place where escape was difficult.
-Conditioning (public places trigger fear of having subsequent attacks).
-Often precipitated by major life events.

Maintaining Factors:
-Avoidance reduces fear & ensures self-safety.

Epidemiology: Women: men = 2:1. Onset: most cases begin in the early or middle twenties, though there is a further period of high onset in the middle thirties. Both of these ages are later than the average onset of specific phobia (childhood) and social phobias (late teenagers or early twenties). One-year prevalence: men; about 2 %, women: about 4 %. Lifetime prevalence: 6 – 10 %.

Treatment: Cognitive-Behavior Therapy (CBT):

Cognitive Component:
Detection and correction of wrong thoughts & illogical ways of reasoning (cognitive distortions) about the origin, meaning, and consequence of symptoms. E.g. of cognitive distortions: magnification of events out of proportion to their actual significance.

Behavioral Component:
- Detailed inquiry about the situations that provoke anxiety, associated thoughts, and how much these situations are avoided.
- Hierarchy is drawn up (from the least – to the most anxiety provoking).
- The patient is then taught to relax (relaxation training).
- Exposure: the patient is persuaded to enter the feared situation (to confront situations that he generally avoids).
- The patient should cope with anxiety experienced during exposure and try to stay in the situation until anxiety has declined.
- When one stage is accomplished the patient moves to the next stage.
- The patient is trained to overcome avoidance (as escape during exposure will reinforce the phobic behavior).

Medications: as for panic disorder (SSRIs +/- anxiolytics as per need).

Prognosis:

Good prognostic factors:
1- Younger age.
2- Presence of panic attacks.
3- Early treatment.

Bad prognostic factors:
1- Age > 30 years. 2- Absence of panic attacks.
3- Late treatment.
It can be chronic disabling disorder complicated by depressive symptoms.

Social Phobia
(also called **social anxiety disorder**)

Mr. Jamal is a 28-year-old man presented with 3-year history of disabling distress when talking to important people. He would feel anxious, and his voice would become so disturbed that he had difficulty speaking.

Features:

Marked irrational performance anxiety when a person is exposed to a possible scrutiny by others particularly unfamiliar people or authority figures leading to a desire for escape or avoidance associated with a negative belief of being socially inadequate. The problem leads to significant interference with functioning (social, occupational, academic…). The person has anticipatory anxiety.
The response may take a form of panic attack (situationally- bound or situationally- predisposed).

Common complaints: palpitation, trembling, sweating, and blushing.

Examples: speaking in public (meetings, parties, lectures) - serving coffee or tea to guests- leading prayers. Social phobia can be either:
a-specific to certain situations (e.g. speaking to authority) or
b-generalized social anxiety.

Associated Features:
Hypersensitivity to criticism and negative evaluation or rejection (avoidant personality traits). Other phobias.
Complications:
Secondary depression. Alcohol or stimulant abuse to relieve anxiety and enhance performance. Deterioration in functioning (underachievement in school, at work, and in social life e.g. delayed marriage).

Differential Diagnosis:

Other phobias. However, multiple phobias can occur together.
Generalized anxiety disorder.
Panic disorder.
Depressive disorder primary or secondary to social phobia.
Patients with persecutory delusions avoid certain social situations.
Avoidant personality disorder may coexist with social phobia.

Etiology:
Genetic factors: some twins' studies found genetic basis for social phobia.
Social factors: excessive demands for social conformity and concerns about impression a person is making on others, (high cultural superego increases shame feeling), some Arab cultures are judgmental and impressionistic.
Behavioral factors: sudden episode of anxiety in a social situation followed by avoidance, reinforces phobic behavior.
Cognitive factors: exaggerated fear of negative evaluation based on thinking that other people will be critical, and one should be ideal person.

Epidemiology:
Age: late teenage or early twenties. It may occur in children. Lifetime prevalence: 3 – 13 %.
In the general population, most individuals fear public speaking and less than half fear speaking to strangers or meeting new people.
Only 8 – 10 % is seen by psychiatrists.
Local studies in Saudi Arabia suggested that social phobia is a notably common disorder among Saudis, (composes 80 % of phobic disorders). Social and cultural differences have some effect on social phobia in terms of age at treatment, duration of illness and some social situations.

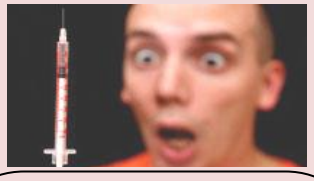
Treatment

A. Psychological:
1. Cognitive-Behavior Therapy -**CBT**-(the treatment of choice for social phobia). Exposure to feared situations is combined with anxiety management (relaxation training with cognitive techniques designed to reduce the effects of anxiety-provoking thoughts).
2. Social Skill Training: e.g. how to initiate, maintain and end conversation. **3**. Assertiveness Training: how to express feelings and thoughts directly and appropriately.
B. Medications: 1. Antidepressants (one of the following):SSRIs (e.g. fluoxetine 20mg) or SNRIs(e.g. Venlafaxine 150mg). **2**. Beta-blockers (e.g.propranolol 20- 40 mg),as they are non-sedative, they are useful in specific social phobia e.g. test anxiety to reduce palpitation and tremor. Beware of bronchial asthma. **3**. Benzodiazepines (e.g. alprazolam 1mg): small divided doses for short time (to avoid the risk of dependence).

Prognosis: If not treated, social phobia often lasts for several years and the episodes gradually become more severe with increasing avoidance. When treated properly the prognosis is usually good. Presence of avoidant personality disorder may delay the improvement**.**

Specific Phobia

Mr. Mazen is a 21-year-old college student who has excessive fear and avoidance of injections and blood. His sister Ms. Nuha, who is an 18-year-old, has excessive fear and avoidance of darkness and elevators.



Features: persistent irrational fear of a specific object or situation (other than those of agoraphobia and social phobia) accompanied by strong desire to avoid the object or the situation, with absence of other psychiatric problems.

Treatment: Behavior therapy; exposure techniques either desensitization or flooding.

Medications (e.g. benzodiazepines, beta adrenergic antagonists) before exposure sessions.

Epidemiology: prevalence in the general population: 4-8% (less than 20 % of patients are seen by psychiatrists). Animal phobia: common in children and women. Most specific phobias occur equally in both sexes. Most specific phobias of adult life are a continuation of childhood phobias. A minority begins in adult life, usually in relation to a highly stressful experience.

Hospital/needle/dental/blood phobias may lead to bad consequences. If started in adult life after stressful events the prognosis is usually good.
If started in childhood, it usually disappears in adolescence but may continue for many years.

Generalized Anxiety Disorder (GAD).

Mr. Emad is a 38-year-old married man seen at outpatient clinic for a 7-month history of persistent disabling anxiety, irritability, muscle tension, and disturbed sleep.

Diagnostic Criteria

A- ≥ 6 months history of excessive anxiety occurring more days than not, about a number of events or activities (such as work or school performance).

B- The person finds it difficult to control the worry.

C- The anxiety and worry are associated with ≥ 3of 6

1. restlessness or feeling keyed up or on edge.
2. being easily fatigued.
3. difficulty concentrating or blank mind.
4. irritability.
5. muscle tension.
6. sleep disturbance.

D- The focus of the anxiety is not confined to features of an Axis I disorder.

E- It causes significant distress or functional impairment in social/ occupational/ or other areas.

F- The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism) and does not occur exclusively during a mood disorder, a psychotic disorder, or a pervasive developmental disorder.

Comorbidity:

More than 50% of patients with GAD have a coexisting mental disorder: especially anxiety disorders (social or specific phobia, or panic disorder) and major depression,

Course and Prognosis:

Chronic, fluctuating and worsens during times of stress. Symptoms may diminish, as patient gets older. Over time, patient may develop secondary depression (common if left untreated). When patient complains mainly of physical symptoms of anxiety and attributes these symptoms to physical causes, he generally seems more difficult to help. **Poor prognosis** is associated with severe symptoms and with derealization, syncopal episodes, agitation and hysterical features.

Epidemiology:

One year prevalence rate: 3 %. Life time prevalence rate: 5 %. Women > men (2:1).
Often begins in early adult life, but may occur for the first time in middle age.
There is a considerable cultural variation in the expression of anxiety. Frequent in primary care and other medical specialties.
Patients usually come to a clinician's attention in their 20s. Only one third of patients seek psychiatric treatment. Many go to general practitioners, or specialized clinics seeking treatment for the somatic component of the disorder.

Etiology:

combination of genetic and environmental influences in childhood. Maladaptive patterns of thinking may act as maintaining factors. Anxiety as a trait has a familial association.

D Dx

1. Anxiety disorder due to medical conditions /medications : e.g. anemia/hyperthyroidism.
2. Other anxiety disorders.
3. Mood disorders(depression/mania).
4. Adjustment disorders (with anxious mood).
5. Substance abuse.

Management

A- Rule out medical causes.

B- Cognitive – behavior therapy (CBT): Anxiety management training: relaxation with cognitive therapy to control worrying thoughts, through identifying and changing the automatic faulty thoughts.

C. Medications: 1. Antidepressants (one of the following):SSRIs (e.g. paroxetine 20mg) or SNRIs(e.g. Venlafaxine 150mg). **2. Buspirone:** it is more effective in reducing the cognitive symptoms of GAD than in reducing the somatic symptoms. Its effect takes about 3 weeks to become evident. **3. Benzodiazepines** for a limited period (to avoid the risk of dependence), during which psychosocial therapeutic approaches are implemented.

Obsessive Compulsive Disorder (OCD).

Ms. Maha is a 20-year-old college student seen at outpatient clinic complaining of recurrent intrusive thoughts about incomplete ablution, bathing, and prayers. She spends 3- 4 hours/day repeating prayers to feel fully satisfied and relaxed. She realizes that her thoughts are silly but she cannot resist them.

Still you are not pure.

Diagnostic Criteria

Recurrent obsessions or compulsions that are severe enough to be time consuming (> 1 hour a day) or causes marked distress or significant impairment.
The person recognizes that the obsessions or compulsions are excessive and unreasonable.
The disturbance is not due to the direct effect of a medical condition, substance or another mental disorder.

Obsessional forms	Obsessional Contents (themes)
Thoughts. Images. Urges. Feelings.	Dirt/Contamination. Religious acts/beliefs. Doubts/Checking. As if committing offences.

Associated features / complications:
Anxiety is an important component of OCD. Compulsions are done to reduce anxiety. Thus, reinforces obsessive compulsive behavior.
Severe guilt due to a pathological sense of self-blaming and total responsibility to such absurd thoughts especially in blasphemous, aggressive and sexual obsessions. **Avoidance** of situations that involve the content of the obsessions, such as dirt or contamination.
Depressive features either as precipitating factor (ie primary), secondary to, or simultaneously arising with OCD.

DDx:
OCD should be differentiated from other mental disorders in which some obsessional symptoms may occur, like:
Depressive disorders.
Anxiety, panic and phobia disorders.
Hypochondriasis.
Schizophrenia: some schizophrenic patients have obsessional thoughts, these are usually odd with peculiar content (e.g. sexual or blasphemous). The degree of resistance is doubtful.
Organic disorders: some organic mental disorders are associated with obsessions e.g. encephalitis, head injury, epilepsy, dementia.
Obsessive Compulsive Personality Disorder (OCPD).

Epidemiology: M=F. Mean age at onset = 20 – 25 years. Mean age of seeking psychiatric help = 27 years. Lifetime prevalence in the general population is 2 -3 % across cultural boundaries. About 10 % of outpatients in psychiatric clinics

Etiology: 1. Genetic Factors. 2. Neurobiological hypothesis: serotonin dysregulation.
3. Psychodynamic Theories: unconscious urges of aggressive or sexual nature reduced by the action of the defense mechanisms of repression, isolation, undoing, and reaction formation. **4.Behavioral Theory:** Excessive obsessions when followed by compulsions or avoidance are reinforced ,maintained and perpetuated.

Management

Search for a depressive disorder and treat it, as effective treatment of a depressive disorder often leads to improvement in the obsessional symptoms.
Reduce the guilt through explaining the nature of the illness and the exaggerated sense of responsibility.
Medications;
1. Antidepressants with an antiobsessional effect ;enhancing 5HT activity.
a. Clomipramine: required doses may reach 200 mg / day.
b. SSRIs (e.g. paroxetine 40-60mg). Treatment of OCD often requires high doses of SSRIs.
2. Anxiolytics (e.g. lorazepam 1mg) to relief anxiety.
Behavior therapy; for prominent compulsions but less effective for obsessional thoughts. Exposure and response prevention. Thought distraction / thought stopping. Behavior therapy may be done at outpatient clinics, day centers or as in – patient. It is important to interview relatives and encourage them to adopt an empathetic and firm attitude to the patient. A family co-therapist plays an important role. **In-patient behavior therapy** can appreciably be helpful for resistant cases and can reduce patient's disability, family burden and major demands on health care resources that are incurred by severe chronic OCD patients.

Course and Prognosis:
In most cases onset is gradual but acute cases have been noted. The majority has a chronic waxing and waning course with exacerbations related to stressful events. Severe cases may become persistent and drug resistant. Depression is a recognized complication.
Prognosis of OCD is *worse* when the patient has OCPD. Good prognosis: presence of mood component (depression/anxiety), compliance with treatment, and family support.

Acute Stress Disorder (ASD) & Post-traumatic Stress Disorder (PTSD)

Mr. Fahad is a 25-year-old man was injured in a serious road traffic accident 3 months ago in which he witnessed his friend dying. Two weeks later he developed recurrent distressing feelings of horror, bad dreams, and irritability.

Life-threatening traumas: major road accidents, fire, physical attack, sexual assault, mugging, robbery, war, flooding, earthquake.

Diagnostic Criteria:

A-Exposure to a traumatic threatening event (experienced, or witnessed) **& response** with horror or intense fear.

B-Persistent re-experience of the event (e.g. flashback, recollections, or distressing dreams.

C-Persistent avoidance of reminder (activities, places, or people).

D- Increased arousal (e.g. hypervigilance, irritability).

E- ≥ 1 month duration of the disturbance.

Etiology: Recent research work places great emphasis on a person's subjective response to trauma than the severity of the stressor itself, which was considered the prime causative factor.
The traumatic event provokes a massive amount of information and emotions, which is not processed easily by the brain (There are alternating periods of acknowledging the event and blocking it, creating distress).

Epidemiology: the lifetime incidence is 10-15% & the lifetime prevalence is about 8 % of the general population. PTSD can appear at any age but young > old & females > males.

Treatment:

Psychological (the major approach)**:**
Support – reassurance – explanation – education.
Encourage discussing stressful events and overcome patient's denial.
In vivo (imaginary) exposure with relaxation and cognitive techniques.
Eye movement desensitization and reprocessing **(EMDR)**: while maintaining a mental image of the trauma the patient focuses on, and follow the rapid lateral movement of the therapist's finger so that the traumatic mental experience is distorted and the associated intense emotions are eliminated.
Group therapy (for group of people who were involved in a disaster e.g. flooding, fire).
Pharmacological:
Symptomatic treatment; anxiolytics (e.g. alprazolam) and serotonin-selective reuptake inhibitors (e.g. sertraline) or tricyclics (e.g. imipramine).

DDx.

1. **Acute stress disorder**: similar features to PTSD but a-onset is within *1 month* after exposure to a stressor (*If symptoms appeared after one month consider post-traumatic stress disorder(PTSD).* b- duration: a minimum of 2 days and a maximum of 4 weeks(*If symptoms continued more than one month consider PTSD).*

Treatment: same as for PTSD.

2. **Other anxiety disorders(GAD, Panic d., & phobias).**
3. **Adjustment disorders** (stressor is not life-threatening, no dissociative features, mental flash backs or horror).
4. **Head injury sequence** (if the traumatic event has included injury to the head, e.g. road accident). Neurological examination should be carried out to exclude a subdural hematoma or other forms of cerebral injury.
5. **Substance abuse** (intoxication or withdrawal).

Prognosis is good if:1-the person is cooperative with treatment and has healthy premorbid function, 2- the trauma was not severe or prolonged, & 3- early intervention and social support exist**.**

Adjustment Disorders

Mrs. Nora is a 35-year-old mother of 4 children delivered a baby defected with cleft palate , 3 weeks later she developed excessive crying, hopelessness, agitation, social withdrawal, & insomnia, . Her husband reported that she has low frustration tolerance when she faces moderate stresses.

Maladaptive psychological responses to ***usual life stressors*** resulting in impaired functioning (social, occupational or academic).

Presentation and Features:

Symptoms develop within *3 months* of the onset of the stressor (if more than 3 months it is less likely that the reaction is a response to that stressor). There should be a marked distress that exceeds what would be expected from exposure to the stressor. There should be a significant functional impairment. Symptoms vary considerably; there are **several types** of adjustment disorders:

- With depressed mood/With anxiety/With mixed anxiety and depressed mood/With disturbance of conduct (violation of rules and disregard of others rights)/With mixed disturbed emotions and conduct/ Unspecified e.g. inappropriate response to the diagnosis of illness, such as social withdrawal without significant depressed or anxious mood, severe noncompliance with treatment and massive denial. *In adults*: depressive, anxious and mixed features are the most common. *In children and the elderly*: physical symptoms are most common.
- Disturbance of conduct occurs mainly in adolescents.

Once the **stressor** (or its consequences) has terminated, the **symptoms** do not persist for more than an additional 6 months. Adjustment disorder can be: ***Acute***: if the disturbance lasts less than 6 months. Or ***Chronic****:* if the disturbance lasts for 6 months or longer (when the stressors or consequences continue).

Epidemiology:

Female : Males 2:1. It may occur at any age but most frequent in adolescents. Common among hospitalized patients for medical and surgical problems.

The prevalence of the disorder is estimated to be from 2 - 8 % of the general population.

Etiology:

Common in those who have preexisting vulnerability: Abnormal personality traits/ Less mature defense mechanisms/ Low frustration tolerance/ High anxiety temperament/ Overprotection by family/Lost a parent in infancy/ Loss of social support.

The severity of the stressor does not predict the severity of the adjustment disorders, because there are other factors involved (personality, nature of the stressor & It's subconscious meaning).

Management

A. Psychological (treatment of choice)

Empathy, understanding, support, & ventilation. Psychosocial Education: explanation & exploration (explore the meaning of the stressor to the patient).

Crisis Intervention: (Several sessions over 4 – 8 weeks)

The patient, during crisis, is passing through emotional turmoil that impairs problem-solving abilities.

Build good relationship with the patient.

Review the steps that have led to the crisis (stresses, defense mechanisms).

Identify and understand the maladaptive reactions.

Manipulate the environment to reduce distress (e.g. hospitalization).

Give small doses of drugs (e.g. anxiolytics) to reduce symptoms.

Encourage and support the patient until he goes through the problem.

Transform that into learning a more adaptive ways of coping strategies (for the future, to prevent such maladjustment reactions).

After successful therapy the patient usually emerges stronger.

B. Medication :

Short course of benzodiazepines in case of adjustment disorder with anxious mood.

Small doses of antidepressants might be beneficial for adjustment disorder with depressed mood.

DDx:

1. **Normal psychological reaction** e.g. bereavement.
2. **PTSD/ASD** (life threatening stressor followed by extreme fear, horror, avoidance and flashbacks).
3. **Anxiety disorders** (GAD or panic disorders).
4. **Major depressive disorder.**
5. **Personality disorders:** these are common co-existing problems e.g. histrionic, obsessive compulsive, avoidant, paranoid or borderline personality disorders.
6. **Dissociative Disorders** (dissociative symptoms).
7. **Brief reactive psychosis** (hallucinations/delusions).

Course and Prognosis:

Generally, it is favorable, particularly with early intervention. Most symptoms diminish over time without treatment especially after stressor removal.

Most patients return to their previous functioning capacity within few months.

Adults recover earlier than adolescents do.

Some patients maintain chronic course with risk of anxiety, depression and substance abuse.

Recurrence is common following other usual life stresses.

Grief ; normal & abnormal grief.

Mrs. Munirah is a 32-year-old woman lost her husband two days ago in a road traffic accident . She has lack of emotional response, anger and disbelief. She has no sadness or crying spells.

Bereavement: being deprived of someone by death.
Grief: sadness appropriate to a real loss.
Mourning: the process of resolution from grief.

Normal Grief: It is a continuous psychological process of three stages:

	1. SHOCK	2. DISORGANIZATION	3. REORGANIZATION
Duration	Few hours-several days	A week - 6 months	Weeks to months
Features	• Numbness (lack of emotional response) • Denial (disbelief or incomplete acceptance and feeling of unreality • Searching for the lost person • Anger • Yearning	• Despair ,sadness, weeping • Poor sleep & appetite • Guilt toward deceased. • Experience of presence of the dead person with illusions and pseudo hallucinations. • Social withdrawal • Somatic complaints with anxious mood.	• Symptoms subside and resolve gradually. • Acceptance of the loss with new adjustment. • Memories of good times. • Often there is a temporary return of symptoms on the anniversary of the death.

Pathological Grief: There are four types of abnormal grief:

1.Abnormally intense grief	2.Prolonged grief	3.Delayed grief	4.Distorted grief
Symptoms are severe enough to meet criteria for *major depression*: • Severe low mood. • Death wishes with suicidal ideas. • Psychomotor retardation. • Global loss of self-esteem. • Self-blame is global. • Does not respond to reassurance.	Grief lasting for ≥ 6months. Symptoms of the first and second stages persist. May be associated with depression. * Duration of normal grief varies with culture (average 6-12 months).	The first stage of grief does not appear until ≥ *2 weeks* after the death. More frequent after sudden, traumatic or unexpected death.	Features that are unusual e.g. : -marked overactivity. -marked hostility. -psychomotor features.

HELPING THE BEREAVED

Normal process of grief should be explained and facilitated: help to overcome denial, encourage talking about the loss, and allow expressing feelings. Consider any practical problems: financial difficulties, caring for dependent children.

Medications: anxiolytics for few days are helpful (when anxiety is severe and sleep is markedly interrupted). Antidepressants do not relieve the distress of normal grief and therefore should be restricted to pathological grief which meets criteria for depressive disorder.

Anti-anxiety Medications (Anxiolytics)

Benzodiazepines

They act on specific receptor sites (benzodiazepine receptors) linked with gamma aminobutyric acid (GABA) receptors in the C.N.S. They enhance GABA action which has an inhibitory effect.

- They have several actions:
  - Sedative & hypnotic action.
  - Anxiolytic action.
  - Anticonvulsant action.
  - Muscle relaxant action.
- They differ in potency and half-life:
  Relatively short acting e.g. alprazolam (xanax), lorazepam (ativan) & Long acting (more than 24 hours) e.g. diazepam (valium) and clonazepam (rivotril).

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- **Side effects:**
  - Dizziness and drowsiness (patient should be warned about these side effects which may impair functions e.g. operation of dangerous machinery, driving).
  - Release of aggression due to reducing inhibition.
  - Dependence and withdrawal:
  - If given for several weeks.
  - Short acting drugs have more risk of dependence.
- **Withdrawal Syndrome:**
  - It generally begins 2 – 3 days after cessation of short acting, and 7 days after cessation of long acting benzodiazepines and then diminishes in another 3 – 10 days.
  - **Features:**
    - Anxiety, irritability, apprehension
    - Nausea
    - Tremor and muscle twitching
    - Heightened sensitivity to stimuli
    - Headache
    - Sweating
    - palpitation
    - Muscle pain
    - Withdrawal fit may occur when the dose of benzodiazepine taken has been high.
- Withdrawal is treated with a long acting benzodiazepine (e.g. diazepam) in equivalent doses before withdrawal then the dose is reduced gradually by about 10 – 20 % every 10 days.

Buspirone (Buspar)

It has anxiolytic activity comparable to that of benzodiazepines. However, it is pharmacologically unrelated to benzodiazepines.

It stimulates 5HT – 1A receptors and reduces 5 HT (serotonin) transmission.

It's onset of action is gradual (several days – weeks) therefore, it is not effective on PRN basis.

It does not cause functional impairment, sedation nor interaction with CNS depressants.

It does not appear to lead to dependence.

Adverse effects:

- Headache.
- Irritability.
- Nervousness.
- Light-headedness.

Adrenergic Receptor Antagonists

Beta Blockers (e.g. propranolol; inderal) are frequently used to control tremor and palpitation in performance anxiety (social phobia) 10 to 40 mg of propranolol 30-60 minutes before the anxiety-provoking situation). Other uses in psychiatry:

1- **other anxiety disorders (e.g. GAD).**
2- **neuroleptic-induced akathisia**
3- **lithium-induced postural tremor.**
4- **control of aggressive behavior.**

Caution in patients with asthma, insulin-dependent diabetes, & cardiac diseases(CCF, IHD).

Psychological Treatments

Definition: a group of non-pharmacological psychotherapeutic techniques employed by a therapist to ameliorate distress, abnormal patterns of relations or symptoms (phobias, obsessions, depressive thinking…)

Cognitive Therapy

Concept:

- Maladaptive cognitive processes (ways of thinking, expectations, attitudes and beliefs) are associated with behavioral and emotional problems**.**
- Correcting maladaptive cognitive processes reduces patient's problems.

Process: maladaptive thinking is **identified**; the common cognitive errors include:

Magnification and minimization of events out of proportion to their actual significance, e.g. depressed patient magnifies his faults and minimizes his achievements.
Overgeneralization: forming a general rule from few instances and applying this rule to all situations no matter how inappropriate.
Arbitrary inferences: making an inference without backing it up with evidence, or alternatively ignoring conflicting evidences.
Selective abstraction: taking a fact out of context while ignoring other significant features and then proceeding to base entire experience on that isolated fact.
Dichotomous thinking: thinking about events or persons in terms of opposite extremes (all or none).
Personalization: relating events and incidents to self where such incidents have no personal bearing or significance.

The maladaptive thinking is then **challenged** by correcting misunderstandings with accurate information and pointing out illogical ways of reasoning. Then alternative ways of thinking are sought out and tested.

Cognitive Error	Assumption	Intervention
Overgeneralizing	If it's true in one case, it applies to any case that is even slightly similar.	Exposure of faulty logic. Establish criteria of which cases are similar to what degree.
Selective abstraction	The only events that matter are failures, deprivation, etc. Should measure self by errors, weaknesses, etc.	Use log to identify successes patient forgot.
Excessive responsibility (assuming personal causality)	I am responsible for all bad things, failures, etc.	Disattribution technique.
Assuming temporal causality (predicting without sufficient evidence)	If it has been true in the past, it's always going to be true.	Expose faulty logic. Specify factors that could influence outcome other than past events.
Self-references	I am the center of everyone's attention especially my bad performances. I am the cause of misfortunes.	Establish criteria to determine when patient is the focus of attention and also the probable facts that cause bad experiences.
Catastrophizing	Always think of the worst. It's almost likely to happen to you.	Calculate real probabilities. Focus on evidence that the worst did not happen.
Dichotomous thinking	Everything is either one extreme or another (black or white, good or bad).	Demonstrate that events may be evaluated on a continuum.

Adapted from Beck AT, Rush AJ, Shaw BF, Emery G. *Cognitive Therapy of Depression*. New York: Guilford Press.

Behavior Therapy

Concept:

The aim for the client (patient) is to increase desirable behaviors and decrease undesirable ones. Behavioral assessment seeks to observe and measure maladaptive behaviors focusing on how the behavior varies in particular settings and under specific conditions. Problems will be decreased through client's learning more adaptive behaviors.

Behavioral techniques:

1. Exposure (flooding or gradual exposure & response prevention; for phobias & OCD).
2. Thought stopping(for OCD).
3. Relaxation training (for anxiety & phobias).
4. Assertiveness training(for dependent and avoidant personality disorders)
5. Token economy (for children, chronic schizophrenic, and intellectually disabled people).

Cognitive behavioral therapy (CBT): combines cognitive and behavioral techniques. It is indicated in: depressive disorders (mild – moderate, but not severe) & anxiety disorders (GAD, phobias, panic disorders).

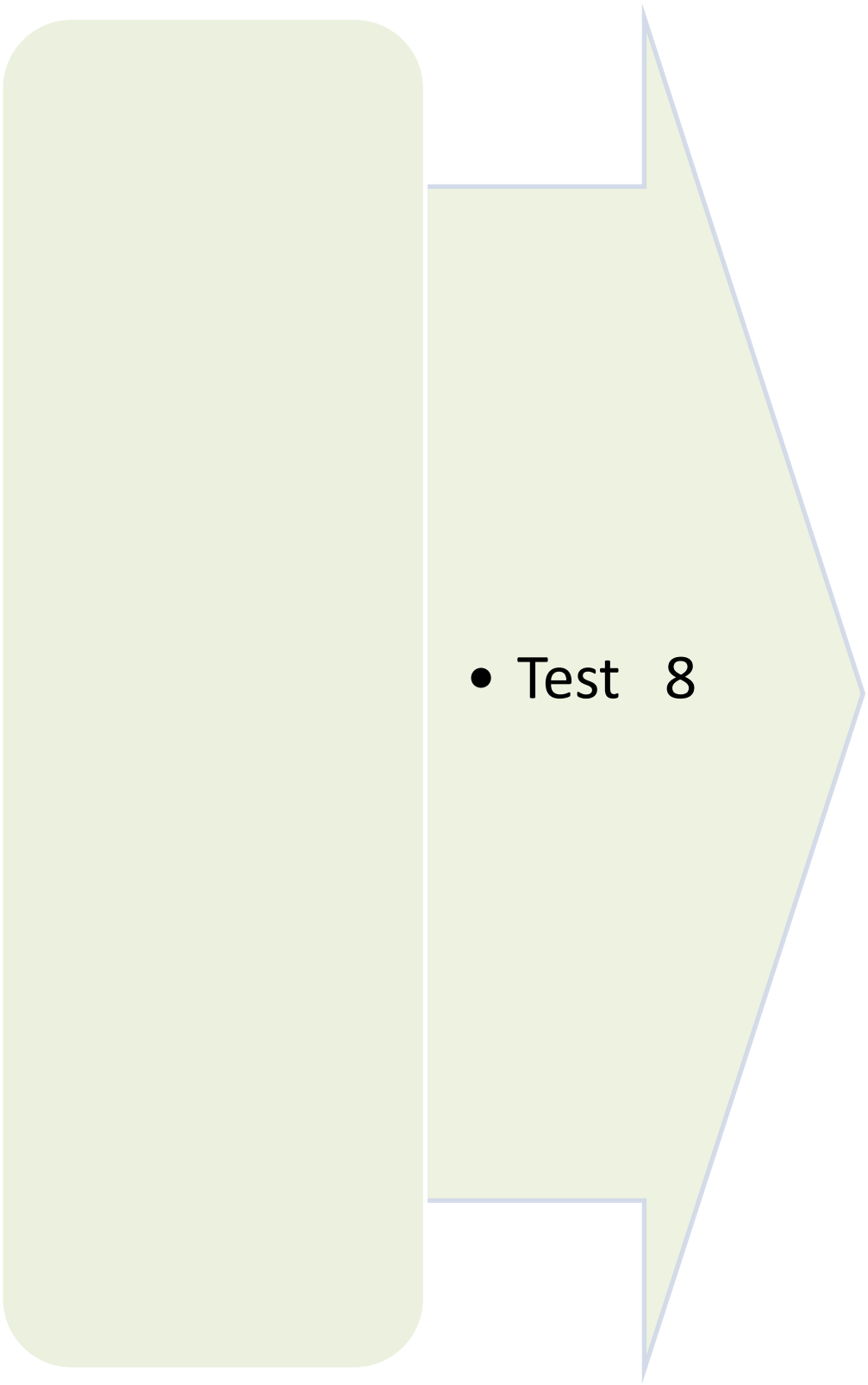
Psychodynamic Psychotherapy

Person's behavior is determined by unconscious process.
Current problems arise from unresolved unconscious conflicts originating in early childhood.
Problems will be reduced or resolved through the client attaining insight (greater understanding of aspects of the disorder) as a mean to gaining more control over abnormal behavior).
It helps some chronically depressed or anxious patients and those with personality problems.

Marital Therapy:

Indications: marital discord & when marital problems act as a maintaining factor of a psychiatric disorder in one or both partners.

- The couple and the therapist identify marital problems, such as:
  - Failure to listen to the other partner.
  - Failure to express wishes, emotions and thought directly.
  - Mind reading.
- The couple then are helped to understand each other.
- The therapist should remain neutral.
- Techniques used include:
  - Behavioral: reinforcement of positive behavior
  - Dynamic: eliciting and correcting unconscious aspects of interaction.
  - Problem solving.


• Test 8

1. A 32-year-old man presented with intense worries when he becomes in the middle of a row in the mosque as escape seems difficult. The most likely diagnosis is:
    a. Panic disorder.
    b. Specific phobia.
    c. Agoraphobia.
    d. Social phobia.

2. A 20-year-old college student presented with repeated bouts of palpitation, sweating, and excessive worries when he uses public transport. The most likely diagnosis is:
    a. Generalized anxiety disorder.
    b. Posttraumatic disorder.
    c. Agoraphobia with panic attacks.
    d. Social phobia.

3. A 37-year-old woman has one-year history of epigastric discomfort, sweating, dysmenorrhea, feeling of restlessness, sensitivity to noise, tinnitus and dizziness. The initial management step should be:
    a. Citalopram 20 mg.
    b. Exclusion of anemia.
    c. Brain CT scan.
    d. Alprazolam for 2 weeks.

4. A 35-year-old mother of three children recently delivered a baby with congenital defected. Three weeks later she became excessively worried, crying, hopeless, agitated, and socially withdrawn. Her husband reported that she always has low frustration tolerance when she faces moderate stresses. The most likely diagnosis is:
    a. Post traumatic stress disorder.
    b. Acute stress disorder.
    c. Brief psychotic disorder.
    d. Adjustment disorder.

5. A 30-year-old woman lost her husband ten days ago in a road traffic accident. She has not showed any emotional reaction. Her condition reflects
    a. A normal adjustment reaction.
    b. An abnormal grief.
    c. Adjustment disorder.
    d. Acute stress disorder.

6. A 28-year-old man witnessed death of his friend in a road traffic accident (RTA) two weeks ago. Since then, he suffers from bouts of excessive fear of driving his car, extreme distress on exposure to reminders of that RTA, and bad dreams. The following is an appropriate management step:

    a. Overcome denial.
    b. Olanzapine 15 mg.
    c. Amitriptyline 50 mg.
    d. Crisis intervention.

7. A 19-year-old woman college student failed 3 weeks ago in two subjects. She came to outpatient psychiatry clinic with 5 days history of lack of sleep, very poor appetite, excessive crying episodes, lack of pleasure and loss of hope. The most appropriate management step is:

    a. Lorazepam 2mg/day.
    b. Crisis intervention.
    c. Risperidone 4 mg / day.
    d. Behavioral therapy.

8. A 14-year-old boy was brought by his father because of 7 days' history of very severe distress, intense fear whenever he goes to his uncle's house. Ten days ago, two of his relatives raped him. The most likely diagnosis is:

    a. Agoraphobia.
    b. Acute stress disorder.
    c. Post traumatic stress disorder.
    d. Social phobia.

9. A 23-year-old man presented with extreme fear whenever he enters an elevator (lift). The most appropriate statement about his treatment is:

    a. Psychodynamic therapy.
    b. Olanzapine 5 mg.
    c. Behavior therapy.
    d. Insight-oriented therapy.

10. A 27-year-old woman referred to psychiatry outpatient clinic through ENT clinic with several months' history of continuous tinnitus, vertigo, and recurrent unprovoked episodes of palpitation. Her investigations were normal. The most appropriate statement about her treatment is:

    a. Escitalopram 10 mg.
    b. Propranolol 100 mg.
    c. Haloperidol 10 mg.
    d. Procyclidine10 mg.

--- --- ---

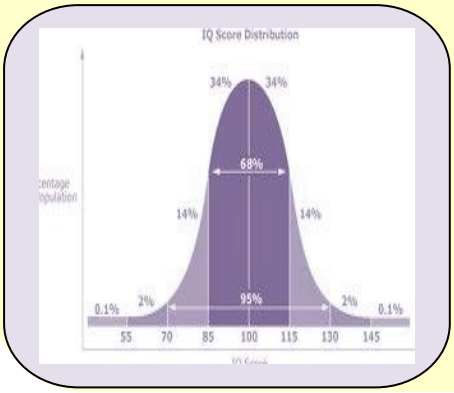
Answers:

1	**2**	**3**	**4**	**5**
C	C	B	D	B
6	**7**	**8**	**9**	**10**
A	B	B	C	A

9

Child Psychiatry

- Definitions , Assessment, & Classification.
- Intellectual Disabilities.
- Autism Spectrum Disorder
- ADHD.
- Elimination Disorders.
- Depression in Children.
- Separation Anxiety Disorder.
- Phobias in Children.



Child psychiatry is concerned with the assessment and treatment of children's emotional, behavioral and relationship problems.

Children are not small adults, but immature and developing individuals. Childhood is a period of life characterized by change and the necessity for adaptation. During childhood the child undergoes a remarkable transformation from a helpless dependent infant to an independent self-sufficient individual with his own views and outlook capable of living separately from his family. In order to judge whether any observed emotional, social or intellectual functioning is abnormal, it has to be compared with the corresponding normal range for the age group.

The practice of child psychiatry differs from that of adult psychiatry in several important aspects:

1.Children are generally less able to express themselves in words. Therefore, evidence of disturbance is based more on observations of behavior made by parents, teachers and others.

2.Greater attention must be paid to the stage of development of the patient and the duration of the disorder in order to decide what is normal and what is abnormal.

3.The treatment of children makes less use of medication or other methods of individual treatment. Instead the main emphasis is on changing the attitudes of parents, reassuring and retraining children, working with the family and coordinating the efforts of others who can help children, especially at school. The family is a most powerful force for the promotion of health as well as for the production of disturbance in the child's life. Assessment of parenting qualities, the marital relationship and the quality of the family interaction are essential components of child psychiatric practice. It is a frequent observation that it is the parents who are disturbed and not the child.

Children development has many aspects: intellectual**,** emotional, social**,** and psychodynamic**.**

Assessment:

Child assessment follows the usual steps in the adult assessment with the following important considerations:

- Flexibility is essential.
- Both parents should be asked to attend the assessment interview, and it is often helpful to have other siblings present.
- The interview room should be large enough to seat the family comfortably and also allow the children to use play material in a relaxed manner.
- Detailed personal history is required.
- Obtaining detailed family interaction is essential:
  - Quality of parenting.
  - Parent - child relationship.
  - Pattern of family relationships.
  - Separation from caretaker for more than a week.
- General health: eating, elimination, sleeping and physical complaints.
- School: attendance, achievement, and relationship with schoolmates and teachers.
- Attention span, concentration and activity.

Observation of the child should include:
Degree of attachment to parents and ease of separation.
Abnormal movements e.g. tics.
Nutritional status.
Evidence of neglect or physical abuse

Childhood Psychiatric Disorders:

Neurodevelopmental Disorders
- Intellectual Disabilities
- Autism Spectrum Disorder
- Attention-Deficit/Hyperactivity Disorder
- Communication Disorders
- Specific Learning Disorder
- Motor Disorders
- Other Neurodevelopmental Disorders

Feeding and Eating Disorders
- Pica
- Rumination Disorder
- Avoidant/Restrictive Food Intake Disorder

Elimination Disorders
- Enuresis
- Encopresis

Children are also susceptible to most of previously mentioned adult psychiatric disorders: phobia, anxiety disorders , depression …etc.

Intellectual Disabilities (Mental Retardation)

Intellectual impairment starting early in life, associated with educational and social disabilities.

Sami is an 8-year-old boy brought by his mother to child psychiatry clinic because of delyed intellectual development; he does not understand what is said to him, cannot serve himself in feeding, dressing, and always needs an assistant in toilet.

Diagnostic Criteria

A. Significantly subaverage intellectual functioning: an IQ of approximately 70 or below on an individually administered IQ test.
B.Concurrent deficits or impairments in present adaptive functioning (i.e., the person's effectiveness in meeting the standards expected for his or her age by his or her cultural group) in at least two of the following areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety.
C.The onset is before age 18 years.

Causes:

Congenital defects.
Intrauterine infections.
Perinatal: anoxia, cerebral hemorrhage
Postnatal: encephalitis, meningitis…
Psychosocial causes; chronic lack of intellectual stimulation.

Comorbidity:

Psychiatric disorders are common in intellectually disabled individuals due to:possible common genetic etiology, organic brain disease, reaction to the stigma of subnormality, family reactions e.g. overprotection, punishment, and
consequences of abnormalities associated with handicap e.g. lack of social skills. Diagnosis of psychiatric disorders is sometimes difficult because symptoms may be modified by low intelligence and poor verbal fluency.
Depression is common but less likely to be expressed verbally.
Adjustment disorders are frequently encountered in mildly retarded people.
Hyperactivity occurs commonly.
Schizophrenia may occur. The main features include further deterioration of mental functions with disturbed behavior and social adjustment. Delusions and hallucinations are less likely to be expressed clearly.

Types:

Mild (IQ:50–70) about75% of cases;educable.

Moderate (IQ:35– 49) about 15% of cases;trainable.

Severe (IQ: 20-34)about 8% of cases.

Profound (IQ: below 20)about 2% of cases.

Degree of Mental Retardation	Preschool Age (0 to 5 yrs) Maturation and Development	School Age (6 to 20 yrs) Training and Education
Mild	Can develop social and communication skills; minimal retardation in sensorimotor areas; often not distinguished from normal until later age	Can learn academic skills up to approximately 6th grade level by late teens; can be guided toward social conformity
Moderate	Can talk or learn to communicate; poor social awareness; fair motor development; profits from training in self-help; can be managed with moderate supervision	Can profit from training in social and occupational skills; unlikely to progress beyond second-grade level in academic subjects; may learn to travel alone in familiar places
Severe	Poor motor development; speech minimal; generally unable to profit from training in self-help; little or no communication skills	Can talk or learn to communicate; can be trained in elemental health habits; profits from systematic habit training; unable to profit from vocational training
Profound	Gross retardation; minimal capacity for functioning in sensorimotor areas; needs nursing care; constant aid and supervision required	Some motor development present; may respond to minimal or limited training in self-help

Source: Mental Retarded Activities of the US Department of Health, Education and Welfare. Washington, DC: US Government Printing Office;

Assessment:

Detailed history including: family history of inherited diseases. Prenatal, perinatal and neonatal history. Development and milestones.
Physical examination.
Behavioral assessment.
IQ test.

Management:

- Special education and training.
- Family support and education.
- Residential care for severe cases.
- Regular reassessmen and follow up.

Pervasive developmental disorders (PDD);

PDDs: affect multiple areas of development (social, language, emotional, & behavioral).They emerge before the age of 3 years and cause persistent dysfunction. PDDs includes five disorders: 1.autistic disorder, 2.Asperger's disorder 3.Rett's disorder, 4.childhood disintegrative disorder, , and 5.pervasive developmental disorder not otherwise specified.

Autistic Disorder (AD)

Riyadh is a 6-year-old boy, does not interact well with his relatives, has marked gaze avoidance, and language impairement. His motor development is normal.

AD is a severe pervasive disorder of emotions, speech and behavior starting in early childhood after a brief period of normal development (before 30 months of age). It occurs at a rate of 4 – 8 / 10,000 , affecting boys more than girls.

Features:

– Impaired reciprocal **social** interactions (even with parents). Gaze avoidance is a characteristics feature.
– Impaired **emotional** responses (emotions toward parents, strangers and inanimate objects are almost the same).
– Impaired **language** development (interpersonal verbal communication is markedly affected).
– Restricted **behavioral** repertoire.

Other features:

Resistant to change the routine and transition (e.g. having breakfast before a bath when the reverse was, may evoke temper tantrums).

Preoccupation with certain objects and rituals with resistance to change (e.g. the same dress, food,).

Labile mood and non-specific anger and fear.

Stereotypies, mannerisms, and grimacing.

Disturbed sleep.

Varying degrees of mental retardation are present in 75 % of cases. Epilepsy may develop in adolescence in 20 – 25 % of severe cases. Enuresis and encopresis may occur.

youtube.com/watch?v=NRkB6eCP3Eo

Causes: unknown organic brain insult is suggested.

Treatment: no specific medication, special school: programs to promote behavioral skills and to reduce undesirable behavior. Family education and support. **Prognosis:** varies depending on several factors such as IQ, language development, and early treatment. About 15 % can lead independent life. About 50 % can acquire some useful speech but continue to have disturbed behavior and cold emotions.

Childhood Disintegrative Disorder(CDD)- Heller's syndrome-: marked regression in several areas of functioning after at least 2 years of normal development. Deterioration over several months of intellectual, social, and language function occurring in 3- and 4-year-olds with previously normal functions. After the deterioration, the children closely resembled children with autistic disorder.

Asperger's Disorder although it is a PDD, no significant delays in language, cognitive development, or self-help skills. **Features:** impairment in social or emotional reciprocity interaction (eye contact, facial expression). **Rett's disorder** is a progressive PDD. Prevalence of 6 / 100,000 girls. It has its onset after some months of normal development. Features:impaired speech, communicative and social skills. The head circumference growth decelerates and produces microcephaly. Poor muscle coordination and gait disturbances.

Attention-Deficit Hyperactivity Disorder (ADHD)

Waleed is a 9-year-old boy, has impulsive behavior , excessive movement in the class and inability to settle in one place:

The prevalence is about 4 %. M > F (4:1).

Features:

- Diminished attention and concentration.
- Overactivity in more than one situation; constant movement with inability to settle.
- Interfering and intruding on others.
- Impulsivity.
- Recklessness, prone to accidents.
- Disobedience and aggression.
- Learning difficulties.

Etiology: The causes are unknown. Several factors have been suggested to play some role :

- Prenatal toxic exposures & prematurity.
- Perinatal trauma and early malnutrition.
- Non specific subtle CNS disease.
- Specific learning disabilities.

Treatment:

Medications: stimulant medications have been found to reduce hyperactivity and improve attention span in 75 % of cases, the exact mechanism of action is not yet known, however, stimulation of cortical inhibition is suggested. Dextroamphetamine(Dexedrine);for children > 3years and methylphenidate (Ritalin,Concerta); for children > 6 years in the morning and afternoon, doses are adjusted according to the response. Possible side effects include restlessness, tremor, sleep disturbances, growth inhibition (growth chart is needed) and dependence.

Psychological treatment: individual and family therapy. Special education.

Prognosis: hyperactivity improves with age in most cases. Some cases may continue in adult life; mainly those with low intelligence and major learning problems.

youtube.com/watch?v=dM9L0T_YFgg

Oppositional Defiant Disorder (ODD):

Negativistic, hostile behavior; refusal to comply with adults, argument and annoyance of others, loss of temper, anger outburst,; spiteful / vindictive behavior. ODD may coexist with ADHD, conduct and many other disorders. It's occurrence increases in families with rigid parents, and intense moody children. **Treatment**: psychological (individual / family).Behavior modification.

Carbamazepine or lithium.

Conduct Disorder (CD)

Fatures: severe and prolonged antisocial behavior in older children and teenagers; aggressive or destructive behavior, rebellion against parents, lying, stealing, vandalism, fire setting, & truancy

Etiology: Adverse psychosocial situations play major roles e.g. broken family, unstable relationships, and poverty.

Treatment: Explore the environmental settings, social & family situations. Family and individual therapies.Haloperidol, lithium and carbamazepine have been found effective in controlling aggression and impulsivity.

Prognosis:Some teenagers continue to have antisocial behavior after the age of 18 years (antisocial personality disorder).

Elimination Disorders

A. Functional Enuresis:

- Repeated involuntary voiding of urine after the age at which continence is usual (5 years) in the absence of any identified physical disorder.
- Nocturnal = bed wetting (at night).
- Diurnal = during waking hours.

– **Primary enuresis:**
If there has been no preceding period of urinary continence for at least 12 months.

– **Secondary enuresis:**
If there has been period of urinary continence for 12 months.

- It is likely to coexist with other psychological distress (e.g. sibling birth, parental discord…).

– **No specific etiology:**? delay in maturation of some brain centers.

∗ **Psychological sequel of enuresis:** conflicts with parents, low self-esteem, social ostracism

Treatment:

– Search for and treat any possible physical disease e.g. repeated urinary tract infections (UTIs), diabetes, epilepsy…..
– Treat any associated emotional problem.
– Advice to parents (to avoid criticism…).
– Fluid restrictions before bedtime.
– Going to toilet before sleep.
– **Behavior therapy:**

- Record dry nights on a calendar and reward dry nights with a star and 7 consecutive dry nights with a gift (star chart technique).
- A bell and pad apparatus is helpful.
- Bladder training.

– **Medications:**
Imipramine (a tricyclic antidepressant) 10 – 50 mg at night can reduce bed wetting significantly, but relapse rate after discontinuing treatment is high.
Desmopressin (an analogue of vasopressin) can be helpful but there is a risk of fluid overload.

B.Functional Encopresis:

- Repeated passing of feces into inappropriate places after the age at which bowel control is usual (4 years).
- Physical causes should be ruled out:
  e.g. chronic constipation with overflow incontinence.
- Stressful events at home may precipitate the condition.
- Assessment should include parental attitudes, emotional factors in the child, and the child's concern about the problem.
- Behavior therapy (rewarding success and ignoring failure) often is helpful.
- Parental guidance and family therapy is required.

Depression in Children

Depressive disorder in children is not uncommon. Child may not express his low mood verbally. Therefore, thorough assessment is required. Depression may be distinguished from normal lowered mood by associated features:

- Significant loss of pleasure (anhedonia) in all areas of interest.
- Withdrawal from social activities.
- Deterioration in school performance (poor concentration and motivation).
- Irritability

Childhood depression is usually self-limiting, but may become chronic or recurrent. Masked depression may present as a behavior disorder. Depression in children may present mainly with somatic symptoms (depressive equivalents). Treatment may include a variety of measures discussed earlier in chapter 9. Antidepressants may be started with low doses. Psychosocial treatment approaches are important.

Separation Anxiety Disorder

Excessive anxiety concerning separation from home or from major attachment figure for at least 4 weeks.

Features:

- Excessive distress when separation is anticipated.
- Excessive worry about possible harm befalling or losing attachment figures.
- Reluctance to go to school because of fear of separation.
- Excessive fear when left alone
- Reluctance to sleep away from attachment figure.

The disorder may be initiated by a frightening experience or insecurity in the family, and is often maintained by overprotective attitude of the parents.

Treatment: Psychological (individual / family) therapy. Behavior therapy. Tricyclic antidepressants (e.g. imipramine 25mg/day).

Phobias in Children

Phobias are common, and usually normal in children. Common feared objects and situations include: animals, strangers, darkness, loud noisy voices. Most childhood phobias improve without specific treatment measures. However, parents should adopt a reasonable reassuring approach. Behavior treatment is required if phobia persists.

School Phobia:

- Irrational fear of going to school associated with unexplained physical complaints such as headache, diarrhea, abdominal pain or feeling sick. Boys and girls are equally affected.
- Complaints occur on school days not in weekends.
- It occurs most commonly at the commencement of schooling, change of school or beginning of intermediate or secondary school.
- Academic achievement is good or superior.
- Possible precipitating factors:

∗ Separation anxiety (mainly in younger children) child wants to stay with a major attachment figure. Mothers are frequently overprotective.
∗ Minor physical illness.
∗ Upsetting event either at home (e.g. parental discord), or at school (e.g. criticism).
∗ General psychiatric problems e.g. low self - esteem and depression (in older children).

Treatment:

– Identify and treat possible causes.
– Early graded return to school (most helpful).
– Both parents should participate.
– School and teachers should be involved.
– Drugs have some role in reducing anxiety / or depressive features.

School Refusal: a pattern of behavior that can have many psychosocial causes and may not be a disorder (e.g. a form of rebellion).

- Test 9

1. A 9 year-old boy student in the third grade brought by his parents because of impulsive behavior ,learning difficulties, disobedience, excessive movement in the class and inability to settle in one place. Before initiating treatment for this case it is important to do:

    a. Liver function tests.
    b. Growth chart.
    c. Thyroid function test.
    d. Complete blood count

2. A 10 year-old girl has delayed milestones, increasing distractibility, poor academic performance, speech problems and destructive behavior. The most appropriate immediate step is:

    a. Brain CT scan.
    b. Growth chart.
    c. IQ test .
    d. Electroncephalogram (EEG).

3. A 5 year-old boy was brought by his mother because she has noticed that he does not interact well with his relatives, does not speak properly and does not laugh as other children. Otherwise his milestone development was comparable to his normal siblings. The most likely diagnosis is:

    a. Disintegrative disorder.
    b. Mental retardation.
    c. Separation Anxiety.
    d. Autistic disorder.

4. A 6 year-old girl was seen at child psychiatry clinic because of bed wetting . Her mother always takes her to toilet before sleep. Her father kept asking her to clean her bed in the morning . The following medication can reduce her symptoms:

    a. Imipramine.
    b. Propranolol.
    c. Fluoxetine.
    d. Valproate .

5. An 11 year-old girl was referred from pediatric clinic because she has repeated unexplained abdominal pain, vomiting, diarrhea, and headache. However, during the week-ends she enjoys visiting relatives and has no symptoms. The most likely diagnosis is:

    a. Somatization disorder.
    b. Malingering.
    c. School phobia.
    d. Asperger's syndrome.

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Answers:

1	2	3	4	5
B	C	D	A	C