

Psychosomatic Medicine

By (Prof Fahad Al-Osaimi)

Objectives:

By the end of this lecture, a student should be able to:

- ◀ Understand relevant concepts related to psychosomatic medicine which resides at interface of physical and mental illnesses.
- ◀ Appreciate that accurate diagnosis and treatment of depression in medically ill pts improves quality of life, enhances engagement in treatment, decreases symptom quantity and severity, and decreases cost utilization, morbidity and mortality.
- ◀ Acquire preliminary skills to evaluate and intervene adequately to manage somatic symptoms and related disorders.

Color index:

- ◆ Important
- ◆ Golden
- ◆ Textbook

- ◆ Old notes (439/438)
- ◆ New notes (441)
- ◆ Extra

Introduction

◀ Psychosomatic Medicine

- Psychosomatic medicine or **consultation-liaison psychiatry** is the subspecialty of psychiatry whose practitioners have particular expertise in the diagnosis and treatment of psychiatric disorders and difficulties in complex medically ill patients (Gitlin et al. 2004).
- Psychosomatic medicine resides at the interface of physical and mental illness (**archaic distinction, all illnesses are physical**)
- Psychosomatic medicine begins long time ago with the Greeks (around 900 BCE).
- The clinical practice of psychosomatic medicine is sometimes called consultation-liaison psychiatry (CLP).
- Since 2001, Psychosomatic medicine has become a subspecialty recognized by the American Board of Medical Specialties.
- Since 2015, Psychosomatic medicine has become a subspecialty recognized by the Saudi Commission for Health Specialties

◀ Criteria of patients in psychosomatic clinics

- Psychiatric illness Secondary to other medical conditions either pathophysiological related (e.g. Psychotic disorder due to brain tumor or depression due to steroids), or psychological related (e.g. adjustment disorder due to recent diagnosis with serious medical illness).
- Major primary psychiatric illness coincident with another serious intrusive medical illness e.g. Schizophrenia in patient with ESRD or post transplantation, perinatal psychiatric conditions...etc.
- Somatic and related disorders e.g. Somatic symptom disorder, illness anxiety disorder, conversion disorder, psychological factors affecting the course of other medical conditions)
- Medical factors/illnesses may affect individual vulnerability, course, & outcome of ANY psychiatric disorder.
- Psychosocial factors/illnesses may affect individual vulnerability, course, & outcome of ANY type of disease.
- Psychological factors may operate to facilitate, sustain, or modify the course of medical disease , even though their relative weight may vary:
 - From illness to illness.
 - Form one individual to another.
 - Between 2 different episodes of the same illness in the same individual.
- **Psychosomatic medicine cares about disorders that are related to both psychiatry and medicine, this related could either be bi-directional, or one way.**
 - **Bi-directional: Diabetes Mellitus and Depression.**
 - **Psychology > Medicine: Nutritional deficiencies in patients with Anorexia Nervosa.**
 - **Medicine > Psychology: Hypothyroidism leading to depression.**

◀ Illness Vs Disease

Illness ¹	Disease ¹
<ul style="list-style-type: none">● The response of the individual and his/her family to symptoms.● Subjective (Psychosocial, cultural, religious factors). -depends on patient experience²	<ul style="list-style-type: none">● Defined by physicians and associated with pathophysiological processes and documented lesions.● Objective.

1- its the name of the disease like SLE while illness is what the patient experience

2- Ex: when patient have physical attention and not emotional from parents when young. emotions might take a physical aspect/picture to gain attention (patient is not aware of it)

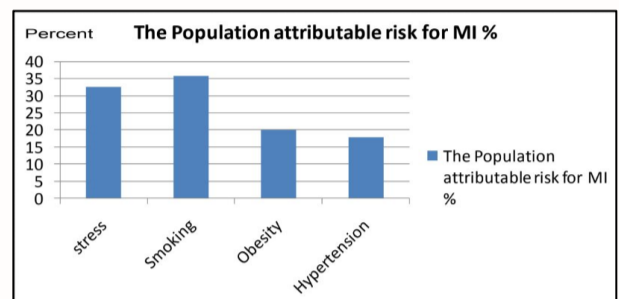
◀ Illness Behavior

- The manner in which individuals monitor their bodies, define and interpret their symptoms, take remedial actions, and utilize the health care system; **depends on** variety of factors:
 - Achievement of objectives.
 - Abnormal illness behavior:
 - Inappropriate or maladaptive mode of perceiving, evaluating or acting in relation to one's own health status.

Illness Affirming ←————→ Illness Denying¹

Case control study of: n > 29000 in 52 countries.

- Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. *Yusef S et al. Lancet 2004*



◀ Quality of life and illness Intrusiveness

439:- The concept of illness intrusiveness is introduced to represent the illness-induced disruptions to lifestyle, activities, and interests that can compromise psychosocial well-being and contribute to emotional distress in chronic disease.

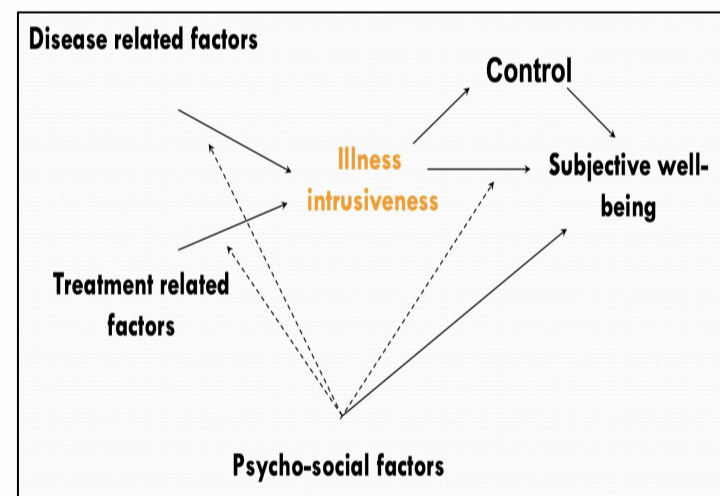
It explains the suffocating feeling that the patient may develop. People will start associating the patient's identity with that disease. A good example of this concept are patients with HIV, the disease will affect the patient's life more than just medically, the social stigma around the patient will affect them psychologically, therefore metaphorically suffocating the patient.

441: kidney failure (intrusive illness) VS dyslipidemia.

مرض يؤثر على جميع نواحي حياتك يقبرها

The patient will be known by the disease (فلان الي فيه سرطان).

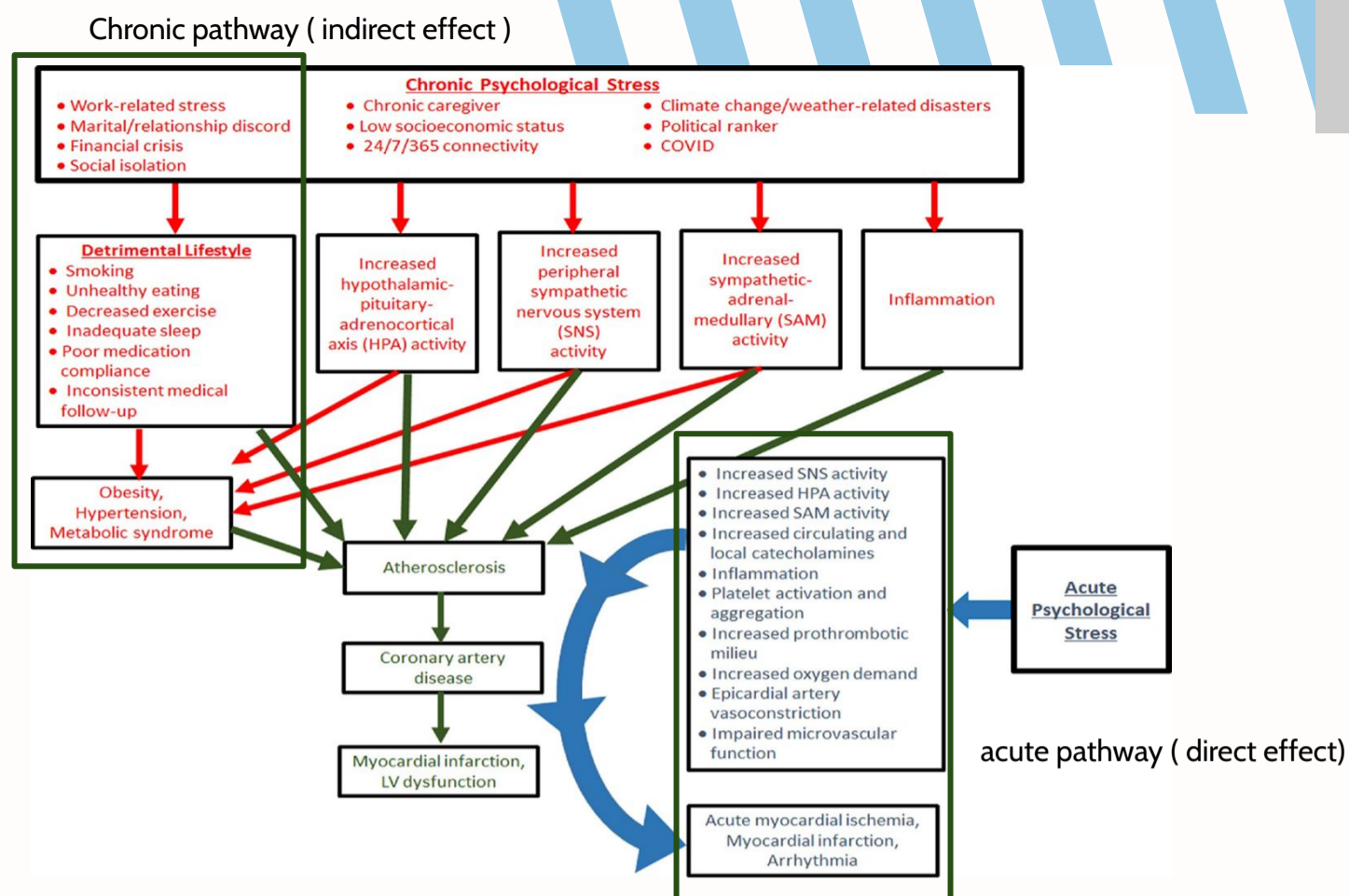
Some diseases can suffocate the patient in more aspects than the course it self



◀ Example of Psychosocial Factors Affecting a Medical Disease (CHD)

- According to The Interheart study, the population attributable risk factor for MI of Hypertension was 17.9%, while the **psychosocial risk factors**(stress/depression...), were responsible about **>30%**.
- Smoking still the first risk factor of MI

◆ 1- Study was done to assess prognosis in 2 groups. first group diminishes their illness (its just a breeze) while the other group acknowledged it (its MI). the study concluded that group 1 had better prognosis because the other group might have more strain on the heart



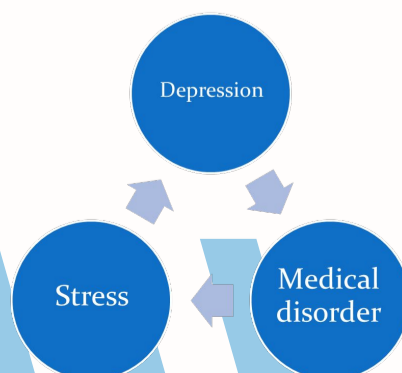
Advantages of Psychosomatic Medicine (CLP) Service

1. Relieve symptoms of distress & improve the quality of life of some patient with serious diseases.
2. May improve the course and prognosis of several major medical illnesses.
3. Cost-effective:
 - a. Reduce the length of hospital stay.
 - b. Reduce the number of unnecessary investigations (performed for physical symptoms that may actually reflect underlying psychological distress).

Approach to Referral to Psychosomatic Medicine

- How to do it (effective psych. Consultation).
 - Review patient charts, asking nurses and physician.
 - Obtain good psychiatric history (paying attention to psychological & social factors).
 - MSE & MMSE if cognitive problem is suspected and possibly neuropsychological assessment.
 - Making logical differential diagnosis among medical, neurological and psychiatric diseases (use multi-axial Dx).
 - Investigate based on that.
 - Make treatment plan.
 - Follow up plan (as inpatient & outpatient).
 - **Collaborate with both the patient and the referring team.** So that's why we called consultation-liaison psychiatry

Depression & medical illnesses



Primary vs Secondary Psychiatric Disorders



Primary

- Etiology is: **Multi-factorial.**
 - e.g. schizophrenia Major depressive disorder.
- In medicine: like Essential hypertension.
- Clues suggestive of being primary:
 - Normal consciousness & vital signs.
 - Presence of:
 - Auditory hallucinations
 - soft neurological signs
 - Young age onset¹

Secondary

- Etiology: **one diagnosable** systemic medical disease, CNS disease or substance.
 - e.g. Depression due to SLE Psychosis due to amphetamine.
- In medicine: like secondary HTN due to renal artery stenosis.
- Clues suggestive of being secondary:
 - Disturbance of consciousness or vital signs.
 - Presence of:
 - non-auditory hallucinations e.g. visual
 - hard neurological signs
 - physical illness
 - old age onset.

Medical Illnesses that Can Induce Secondary Psychiatric Disorders

Three main types of medical illnesses leading to secondary psychiatric disorders are:

- 1- Flare ups of systemic medical illness. (SLE, DM, ...)
- 2- CNS pathologies. (Seizure disorder, traumatic brain injury, ...)
- 3- Substance use, either illicit or therapeutic substances.

Endocrine	Metabolic	Infectious	Autoimmune	CNS
Thyroid disorder	Hepatic disorder	> Neurocystercosis	> Systemic Lupus Erythematosus	Seizure DO
> Hypo-	> Wilson's	> Tuberculosis (TB)	> Multiple Sclerosis	> TLE
> Hyper-	> Encephalopathy	> PANDAS	> Pernicious Anemia (B12 def)	> Frontal LE
Adrenal disorder	> Porphyria	> Neuroborriosis	> Addison's Disease (hypoadrenalism)	> Paraneoplastic Syndrome
> Hypo-	Vitamin def	> Neurosyphilis	> Grave's Disease (hyperthyroidism)	Dementia
> Hyper-	> B-1	> Herpes	> Fibromyalgia	> NPH
> Pheochromocytoma	> B-12	> HIV	> PANDAS	> Delirium
Parathyroid DO	Electrolyte imbalances	Sepsis		Subdural hematoma
> Hypo-	Hypoxia	Malaria		Tumor
> Hyper-	Lead toxicity	Legionnaire disease		Meningitis
Pancreatic DO		Typhoid		Encephalitis
> Hyperglycemia		Diphtheria		> Multiple Sclerosis
> Hypoglycemia		Rheumatic fever		NMS
> Pancreatic tumor		Pneumonia		
		UTI		

Prescription drugs	
	■ Chemotherapeutic Rx's
	■ Immunosuppressants (e.g., cyclosporin [Gengraf, Neoral, Sandimmune])
	■ Antiviral Rx's (e.g., interferons)
	■ Antiparkinsonian Rx's
	■ Cardiovascular Rx's
	■ Thyroid Rx's
	■ Anticholinergic Rx's
	■ Corticosteroids
	■ Psychostimulants
	■ Sympathomimetics
	■ Sedative & CNS-depressants (e.g., barbiturates, benzodiazepines)
	■ Opioids

Investigations to Suggest Secondary Psychiatric Disorders

- | | |
|--|---|
| <ul style="list-style-type: none"> • Hormonal levels • CBC • Chemistry panel • Thyroid Function Test • Screening test for syphilis (VDRL or RPR) • HIV serology for high risk patients • B12 and folate • Urinalysis (with protein and glucose levels) | <ul style="list-style-type: none"> • Toxicology screening • Urine for uroporphyrins and porphobilinogen • Serum ceruloplasmin • Chest X-ray • ECG • EEG • CT/MRI |
|--|---|

1- Psycho ex:- 65 old patient with visual hallucinations, its likely psychotic disorder due to other condition (secondary)
- while if the patient is 20 with agitation and hallucination it might be schizo (primary)

◀ Clues Suggestive of Psychiatric Disorder 2ndary to Another Medical Condition (previously called "Organic" Mental Disorders)

- **History:**
 - Psychological symptoms occurring.
 - **New onset psychiatric symptoms presenting after age 40.**
 - **During the course of a major medical illness which had impaired some organ function (e.g., neurological, endocrine, renal, hepatic, cardiac, pulmonary).**
 - **While taking medications/illicit substance, he had psychoactive effects.**
- **Family history of:**
 - **-ve for primary psychiatric illness.**
 - **+ve for medical disease that may present with psychiatric symptoms (e.g. Degenerative or Inheritable neurological disorders (e.g., Alzheimer's disease, Huntington's disease). Inheritable metabolic disorders (e.g., DM, Pernicious Anemia, Porphyrin).**
- **Clinical Exam:**
 - Abnormal vital signs.
 - Evidence of organ dysfunction, focal neurological deficits.
 - Eye exam:
 - Pupillary changes—asymmetries.
 - Nystagmus (often a sign of drug intoxication).
 - Presence of altered states of mind, LOC, mental status changes, cognitive impairment; episodic, recurrent, cyclic course.
 - Presence of visual, tactile or olfactory hallucinations.
 - Signs of:
 - Cortical dysfunction (e.g., dysphagia, apraxia, agnosia).
 - Diffuse subcortical dysfunction (e.g., slowed speech/mentation/movement, ataxia, incoordination, tremor, chorea, asterixis, dysarthria).

◀ Global Burden of Disease Attributable to Mental and Substance Use Disorders: Findings from the Global Burden of Disease Study 2010

- As part of the GBD 2010, epidemiological data was collected for 20 mental and substance abuse disorders in 187 countries.
- In 2010, mental and substance use disorders accounted for 183.9 million DALYs or **7.4% of all DALYs worldwide.**
- Mental and substance abuse disorders were the leading cause of non-fatal illness worldwide in 2010 (22.8%). **1 out of 4**
- The burden of mental and substance use disorders increased by 37.6% between 1990 and 2010.
- Depressive disorders were responsible for 40% of the burden of illness due to mental and substance abuse disorders.

◀ The global burden of disease, 1990-2020 Expected Vs what happened

- Lower Respiratory Infections
 - Diarrheal Diseases
 - Perinatal conditions
 - Depression
 - Heart Diseases
 - Cerebrovascular D/O
- went from 4 to 2
- Heart Diseases
 - Depression
 - Traffic accidents
 - Cerebrovascular D/O
 - COPD
 - Lower Respiratory Infections

◀ Global burden of disease attributable to mental and substance use disorders

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◀ The burden of disease in Saudi Arabia 1990–2017: results from the Global Burden of Disease Study 2017

- Years lived with disability (YLDs) in SA due to mental disorders and substance use disorders consistently increased over the periods 1990–2010 and 2010–17.
- In 2017, low back pain, migraines, opioid use disorders, MDD, DM II, and anxiety disorders were major challenges for SA.

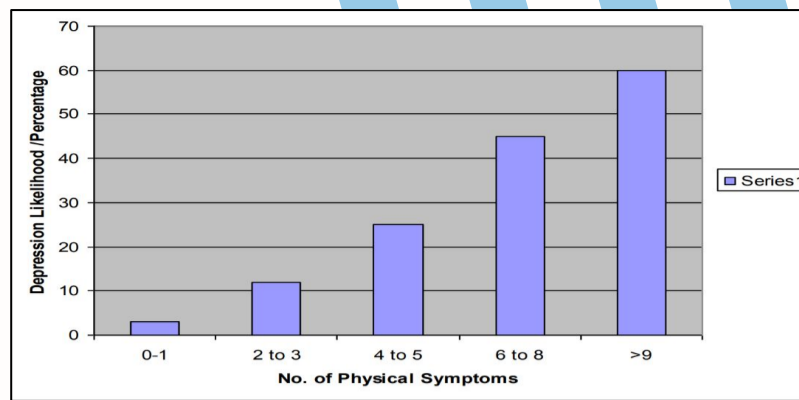
Leading causes 2010

1 Cardiovascular diseases
2 Musculoskeletal disorders
3 Transport injuries
4 Neoplasms
5 Neurological disorders
6 Diabetes and kidney diseases
7 Other non-communicable diseases
8 Mental disorders
9 Maternal and neonatal disorders
10 Unintentional injuries
11 Respiratory infections and tuberculosis
12 Chronic respiratory disorders
13 Digestive diseases
14 Sense organ diseases
15 Substance use
16 Skin and subcutaneous diseases
17 Enteric infections
18 Self-harm and interpersonal violence
19 Nutritional deficiencies
20 Other infectious diseases
21 HIV/AIDS and sexually transmitted infections
22 Neglected tropical diseases and malaria

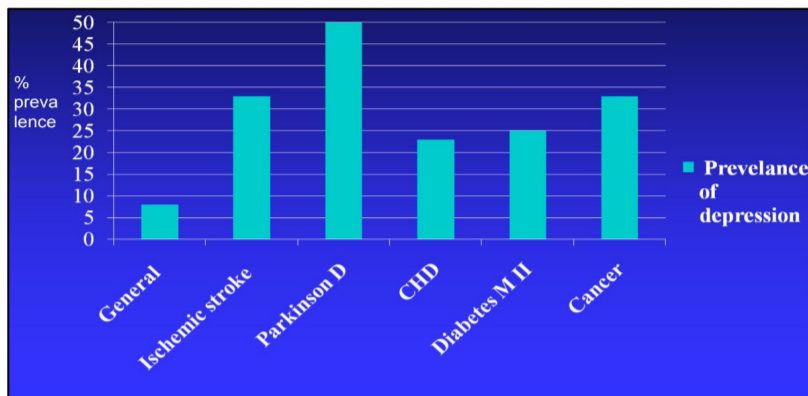
Leading causes 2017

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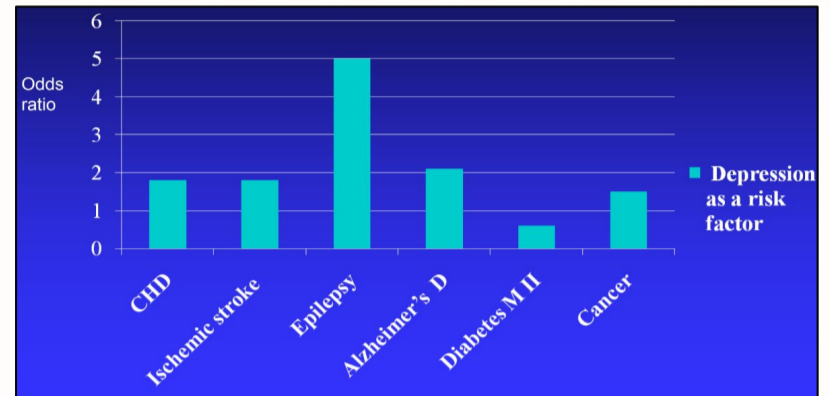
Top causes of DALYs in Saudi Arabia for the periods 2010- 2017



Likelihood of depression increases with the number of physical symptoms at presentation



Epidemiology of depression in some medical illnesses



Depression as a risk factor for the development of medical illness

Depression Plus Medically Illness

1. Poor outcomes of the medical illness
2. Increased mortality in cardiovascular disease, stroke, diabetes, and **cancer**. (Cancer is controversial, there's a lot of debate about it).
3. Chronic medical conditions and depression are interrelated and that treatment of one condition can affect the outcomes for the other.
4. Worse adherence to medical regimens, tobacco smoking, sedentary lifestyle, and overeating.
5. Increased functional disability, decreased self-care.
6. Four to five times greater levels of morbidity, premature mortality, health services use and health care expenditures compared to non-depressed patients with no GMC.

Pathophysiology: Mediating Factors Between Depression, Stress and Medical Illnesses

One way to figure out if the depression was caused by psychological issues or if it's the other way around.
- One way of doing so is by asking the patient which symptoms came first.

Physiological

- hyperactivity of the hypothalamic- pituitary- adrenal (HPA) axis.
- Immune activation with release of proinflammatory cytokines.
- Activation of the sympathetic nervous system.
- Stress → activation of sympathetic nervous system (CRH can directly bind to brainstem autonomic centers [e.g., locus coeruleus]) → immune system activation (IL-1, IL-6 and TNF-alpha) → these inflammatory cytokines cause further release of CRH → stress response all over again

Behavioural

- Physical inactivity.
- Smoking.
- High carbohydrate & high fat diet.
- Poor adherence to medications.
- **Social isolation.**

◀ DSM-5 Criteria for Major Depression (Physical & Psychological Symptoms)

<p>A. Five (or more) of the following symptoms during the same two week period and represent a change from previous functioning, at least one of the symptoms is: (1) depressed mood. or (2) loss of interest or pleasure.</p>	<p>A. Must have at least five of the following symptoms for at least two weeks (must include either number 1 or 2)</p> <ol style="list-style-type: none"> 1. Depressed mood most of the time. 2. Interest: Loss of interest (anhedonia). 3. Weight: Change in appetite or weight (↑ or ↓). 4. Sleep: Insomnia or hypersomnia 5. Motor: Psychomotor agitation or retardation 6. Energy: Fatigue or loss of energy 7. Guilt: excessive feeling of guilt or worthlessness 8. Concentration: Diminished concentration 9. Suicide: Recurrent thoughts of suicide and death <p><i>Depression Is Worth Solidly Memorizing An Extremely Grueling Criteria. Sorry</i></p>
<p>B. The symptoms cause significant distress or impairment in functioning.</p>	
<p>C. The episode is not attributable to the physiological effects of a substance or another medical condition.</p>	
<p>D. The occurrence is not better explained by another mental disorder.</p>	
<p>E. There has never been a manic episode or a hypomanic episode.</p>	

Physical	Psychological
1. Sleep disorder	1. Low self-esteem/guilt
2. Appetite or weight change	2. Poor concentration/indecisiveness
3. Fatigue	3. Thoughts of death/suicidal ideation
4. Psychomotor retardation or agitation	4. Depressed mood
	5. Loss of interest/pleasure

◀ Diagnostic Approach in the Medically Ill

- **Inclusion approach: count all physical symptoms as part of depression even if possibly explained by the medical illness (to give patients, the benefit of doubt, by treating disabling illness like depression)**

(it's difficult to diagnose a patient with a major depressive disorder when they have a medical illness like cancer, because both of them have fatigue and loss of appetite. We use inclusion criteria in this case to diagnose, however research relies on exclusive approach)

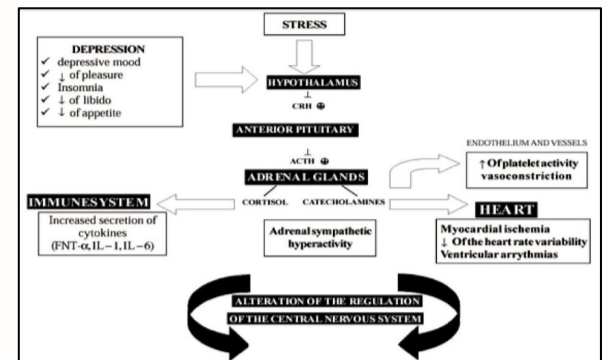
◀ Differential diagnosis:

- Depressive disorder due to another medical condition
- Substance-induced depressive disorder, iatrogenic versus other illicit substances
- Bipolar I/II disorder, most recent episode depressed
- Major depressive disorder (unipolar)
- Persistent depressive disorder (dysthymia)
- Adjustment disorder with depressed mood (common in medical setting)

Examples of depression in medically ill patients

◀ Depression & coronary heart disease

- Depression has repeatedly been found to predict:
 - Early onset CHD
 - post-MI mortality (1.5-5.07 times risk), especially severe and chronic types (e.g. **HAM-depression**) scale score in the first 2 weeks post CHD event predict 7 years mortality risk
 - Increased CHD symptoms (chest pain, fatigue)
 - Noncompliance on exercise/medication/smoking



◀ Post-Stroke Depression

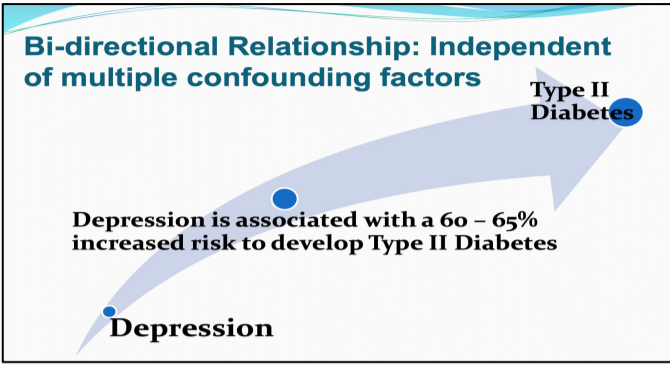
- After stroke, 25-40% of patients meet criteria for depression
- Studies in the 80's and 90's demonstrated that post-stroke depression (PSD) was associated with left frontal brain lesions, worse physical and cognitive recovery, and increased mortality.
- These depressions were shown to be treatable with antidepressants and successful treatment led to both improved recovery and survival
- There have now been RCTs showing PSD may be treated and prevented effectively with **citalopram**, **nortriptyline**, or **reboxetine** (norepinephrine reuptake inhibitor)
- Later, antidepressants shown to improve physical and cognitive recovery over 1 year independent of depression
 - Being non-active after a stroke leaves ischemic lesion in a pond of inflammation
 - The primary stimulus for brain healing is mental exertion (use it or lose it principle)
 - Antidepressants promote angiogenesis, synaptogenesis and neurogenesis.
- Over 7 years, antidepressants shown to decrease mortality by 50% even among non-depressed patients, how? (inflammatory proteins are released both by stroke and depression and can have long lasting negative effects on brain function)
- Antidepressants have been shown to decrease these inflammatory proteins → neurogenesis and synaptogenesis → improved recovery and decreased mortality following stroke
 - Anti-TNF agents have been shown to improve and induce remission of depression in patients with connective tissue diseases (e.g., psoriasis)
- However patients who take both NSAIDs and antidepressants should be monitored for intracranial hemorrhage (e.g., **Antiplatelet function of SSRIs**)
- **Prevention of depression by antidepressants in stroke patients (prophylaxis):**
 - Family history of depression
 - Ischemic stroke
 - Personal hx of stroke
 - Left frontal lobe stroke

◀ Illness Behavior

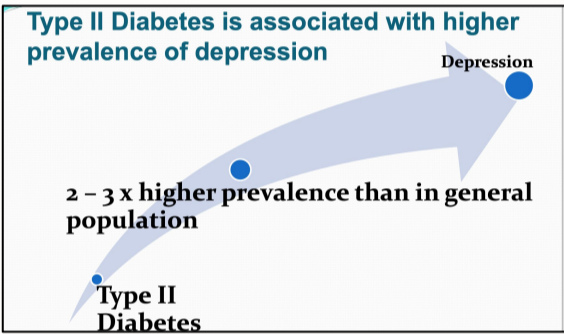
Illness Affirming

Illness Denying

Depression and Diabetes

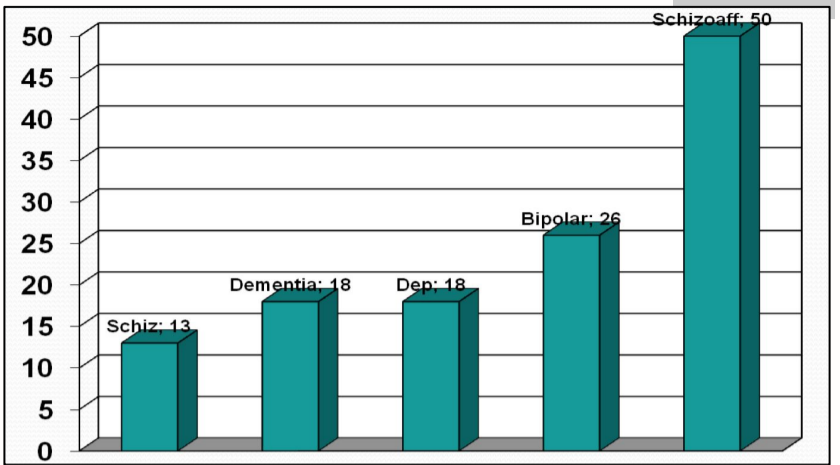


- Depression is associated with → increased sympathetic nervous system activation → increased secretion of inflammatory cytokines → inflammatory cytokines promote ectopic fat formation → insulin resistance
- Depression is associated with thyroid hypofunction, leading to a generalized decrease in almost all hormonal action
- Depression is associated with CRH release (marker of stress) → glucocorticoids are diabetogenic

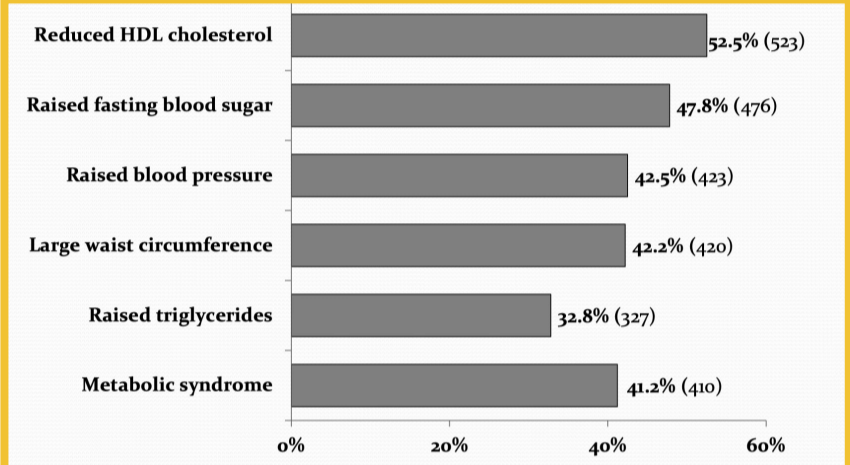


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91	92	93	94	95	96	97	98	99	100

Diabetes distress (ضائقة السكري)



Prevalence of diabetes among patients with major psychiatric disorders



Prevalence of metabolic syndrome and its individual components among Saudi psychiatric patients (N=996). PERCENTAGES ARE IMPORTANT!

The Distress Thermometer

First please circle the number (0-10) that best describes how much distress you have been experiencing in the past week including today.

Second, please indicate if any of the following has been a problem for you in the past week including today. Be sure to check YES or NO for each.

YES	NO	Practical Problems	YES	NO	Physical Problems
<input type="checkbox"/>	<input type="checkbox"/>	Child Care	<input type="checkbox"/>	<input type="checkbox"/>	Appearance
<input type="checkbox"/>	<input type="checkbox"/>	Housing	<input type="checkbox"/>	<input type="checkbox"/>	Bathing/dressing
<input type="checkbox"/>	<input type="checkbox"/>	Insurance/financial	<input type="checkbox"/>	<input type="checkbox"/>	Breathing
<input type="checkbox"/>	<input type="checkbox"/>	Transportation	<input type="checkbox"/>	<input type="checkbox"/>	Changes in urination
<input type="checkbox"/>	<input type="checkbox"/>	Work/school	<input type="checkbox"/>	<input type="checkbox"/>	Constipation
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Diarrhoea
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Eating
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Fatigue
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Feeling Swollen
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Fevers
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Getting around
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Indigestion
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Memory/concentration
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Mouth sores
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Nausea
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Nose dry/congested
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Pain
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Sexual
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Skin dry/itchy
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Sleep
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Tingling in hands/feet
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Other problems

مقياس الكدر لمرضى الأورام

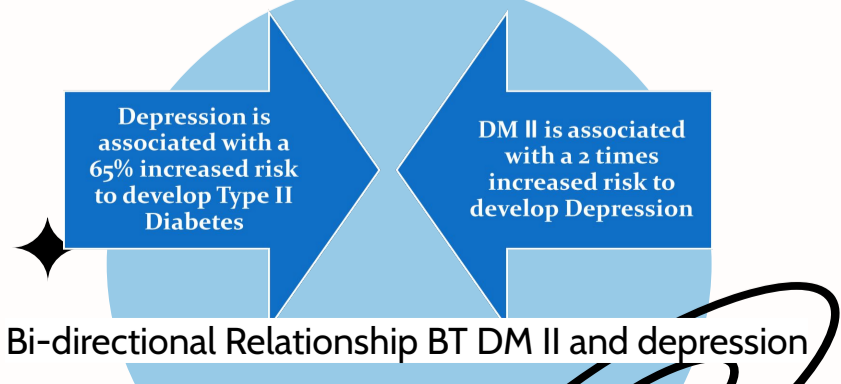
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رقم الملف: _____

المرضى الذين يعانون من مشاكل في الأورام...

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81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

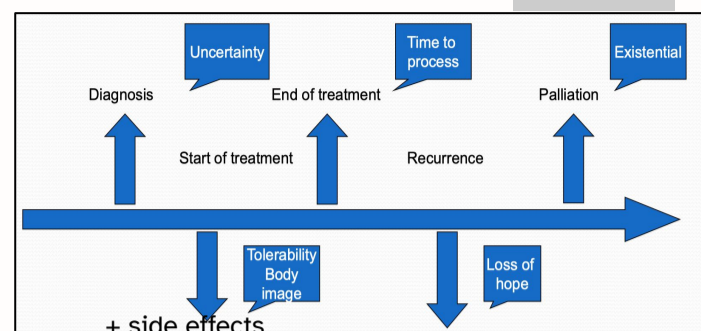
Psychiatric disorder	Comparison of prevalence estimates with control group
Schizophrenia	Up to 3 times increased risk
Bipolar disorder	Up to 3 times increased risk
Depression	Up to 1.5 times increased risk
Anxiety disorder	Up to 1.5 times increased risk
Psychosis	Up to 10 times increased risk
Mixed group of psychiatric disorders	Up to 5 times increased risk



Prevalence of type 2 diabetes in psychiatric disorders: an umbrella review with meta-analysis

◀ Cancer

- Many oncologists consider depression part of the illness and often conclude it therefore does not require treatment
- Many also believe that if the cancer can be treated, then the accompanying depression will remit on its own
- Many patients deal with the knowledge of having cancer through the expected grieving process. But it may precipitate an episode of major depression in 25%



◀ Summary of Depression in the Medically Ill

Historically, depression in the medically ill was often considered a natural and expected response to medical illness **“OLD WRONG IDEA”**

- Treatment of depression was often considered secondary to treatment of the medical illness, if the depression was even treated at all
- Today, this perspective can no longer be accepted
- **Depression is a systemic disease**
- The effect of depression on the course of medical illness is multifaceted because there are systemic pathophysiologic implications, as well as psychological and behavioral ramifications
- The accurate diagnosis and appropriate treatment of depression in the medically ill improves quality of life, enhances the patient's ability to be actively engaged in his or her treatment, decreases symptom quantity and severity, and decreases cost utilization
- Most important, it decreases morbidity and mortality

◀ Important Messages About Meds in ESRD

- Most **psychotropic** tx are **fat soluble**, easily pass the BBB, not dialyzable, **metabolized** primarily by the **liver**, and excreted mainly in bile. (**lithium is a notable exception**).
- Monitor decline in renal function, esp. in elderly, CKD progression is often non-linear.
- Try to avoid nephrotoxic drugs in CKD pts (e.g. lithium).
- Start at a low dose and increase slowly. **until reaching the therapeutic dose**
- Majority of patients with ESRD both tolerate and require **ordinary doses** of most psychotropic tx.
- Try to avoid long-acting drugs (e.g. depot), polypharmacy, tx w/anticholinergic effects, prolong QTc.
- Monitor weight carefully.
- Be vigilant for serotonin syndrome, and NMS; as rhabdomyolysis can cause renal failure
- 439: The majority of these drugs can be safely used with the ESRD populations.
- Dosing often involves trial and error. The majority of patients with ESRD both tolerate and require ordinary doses of most psychotropic medications.
- Toxicity is usually obvious, and we would caution more against undermedicating than overmedication.

◀ Summary of psychopharmacology for patients with liver disease:

- To guide pharmacotherapy in liver disease, use Child-pugh scores with closer monitoring to help increase the safety and tolerability
- Prescribe as few drugs as possible (monitor Drug interactions).
- Start at a low dose and increase slowly and stop at lower doses as most psych tx are extensively hepatically metabolized.
- Consider the implications of low albumin on highly protein bound drugs, and ascites on water soluble drugs.
- Avoid long-half life tx, pro-drugs, sedative/ constipating (risk of hepatic encephalopathy), hepatotoxic tx,
- Choose a low-risk drug and monitor LFTs initially weekly

- 439: When choosing psychotropic agents for patients with liver disease, consider the following:
 - **Drug interactions:**
 - e.g. NSAIDs + SSRI → GI bleed
 - **Medical diseases:**
 - E.g. severity of liver disease, protein binding
 - **Age:**
 - E.g. decreased risk hepatotoxicity in adults
 - **Drug profile:**
 - E.g. hepatotoxicity, hyperammonemia
 - **Hepatic modifications:**
 - E.g. bupropion vs citalopram (increased risk of seizures upon combination)

Perinatal Psychiatry

Consequences of Depression in Pregnancy

It's crucial to treat depression in pregnant ladies, we should not wait until the baby is born.

Mother	Baby
<ul style="list-style-type: none"> • Suicide • unhealthy practices e.g. smoking • Poor nutrition • Less compliant with prenatal care • Increased pain ,nausea, stomach pain, SOB, GI symptoms..etc 	<ul style="list-style-type: none"> • low birth weight, smaller head circumferences, premature delivery, etc • poor mother-infant attachment, delayed cognitive and linguistic skills, impaired emotional development, and behavioral issues • emotional instability and conduct disorders, attempt suicide, and require mental health services

Depression in Pregnant Women

- 10% to 16% of pregnant women fulfill the diagnostic criteria for MDD, and even more women experience subsyndromal depressive symptoms
- Many of depressive symptoms overlap with the physical and mental changes experienced during pregnancy
 - **The organicity of depression is no longer debatable**

Treatment of Depression in Pregnant Women

- Several meta-analysis of SSRIs: No increase in risk of congenital malformation with exception of Paroxetine.
- Antidepressants reduce risk for preterm birth and cesarean delivery compared with Depressed women untreated BUT has more neonatal complications, including low Apgar score (?Withdrawal syndrome), but benign and self-limited.
- NO association between TCA use in pregnancy and structural malformations.
- Fluoxetine and TCA are not behavioral teratogens and do not have a significant effect on cognitive development, language or behavior.
- Presumed associations between antidepressants and malformations may be complicated by confounders e.g, depression itself, poly-drug interactions
- Bupropion, venlafaxine, duloxetine, nefazodone, and mirtazepine (all discussed in depression lecture): NO statistically significant difference or higher than expected rate of congenital anomalies
- ★ **ECT** has long been regarded as a safe and effective treatment for severe depression, life threatening depression, or failure to response to antidepressant drugs.
- Psychotherapy: is considered to be an evidence-based treatment of mood disorders.
- Mild depression: interpersonal psychotherapy (IPT) or cognitive behavioral therapy (CBT), both having solid evidence-based outcomes data for the treatment of depression.

Couples counseling

- 439: Sertraline, Escitalopram and Citalopram are the Safest SSRIs in Pregnancy
- All SSRIs are category C except for paroxetine (D)
- SSRIs : exposure show NO consistent information to support specific morphological teratogenic risks.
- Presumed associations between antidepressants and malformations may be complicated by polydrug interactions

◀ Treatment of Mania & Psychosis during Pregnancy

- Typical antipsychotics especially high potent (e.g., haloperidol) considered as relatively safe compared to other medications.
- Atypical antipsychotics (e.g., clozapine): no major malformations were found. However, limited data so far, Metabolic syndrome is more with olanzapine and clozapine.
- Lithium is considered first line mood stabilizer during pregnancy despite rare cardiac anomaly (Ebstein anomaly) .
because it is a golden medication (no substitute)
- If the lady was already on Lithium, do not stop it when she gets pregnant.
- However, if she was pregnant you should NOT initiate therapy with Lithium, instead use an alternative until she gives birth.
- Lamotrigine is the safest anticonvulsant among mood stabilizers.
- Avoid valproate & carbamazepine in child bearing women and pregnancy,

◀ Why Avoid Valproate in Childbearing Women and Pregnancy?

- Neural tube defects secondary to interference with folate metabolism with first trimester exposure (Risk = 7-16%)
- Craniofacial defects: mid-face hypoplasia, short nose with anteverted nostrils, and long upper lip
- Hypoglycemia, hepatic dysfunction, fingernail, hypoplasia, cardiac defects, cleft palate, hypospadias, polydactyly
- Neonatal toxicity possible & Significantly lower mean IQ and verbal IQ

◀ Postpartum Depression

- 10% to 20% of women who give birth, Undetected and commonly underdiagnosed.
- Continuum of Affective Symptoms
- Baby blues (does not meet criteria for MDD) → Peripartum depression (MDD during pregnancy or four weeks after delivery) → postpartum psychosis (2 weeks postpartum)
- SSRIs are medications prescribed most commonly but other agents should be considered
- More positive response to SSRIs and Venlafaxine, than to TCAs
- Pharmacotherapy should continue for at least 6 months to prevent a relapse of symptoms
- The nutritional, immunologic and psychological benefits of breastfeeding have been well documented.
- Breastfeeding: All antidepressants are secreted to some degree into the breast milk!
- Antidepressants esp. SSRIs in general are considered to be relatively safe for use during breastfeeding.
- **Recommend sertraline or Paroxetine** : Infant serum levels are low to undetectable.
- Research on long-term effects of SSRI and TCA exposure through breast milk on children shows NO alteration in IQ, language development, or behavior
- IPT and CBT are effective.
- 439:Do not advise the mother to stop breastfeeding, unless absolutely necessary.

Table 2. Distinguishing Between "Baby Blues" and Postpartum Major Depression

Characteristic	Baby blues	Postpartum major depression
Duration	Less than 10 days	More than two weeks
Onset	Within two to three days postpartum	Often within first month; may be up to one year
Prevalence	80 percent	5 to 7 percent
Severity	Mild dysfunction	Moderate to severe dysfunction
Suicidal ideation	Not present	May be present

◀ Postpartum Psychosis

- Rare: 1 in 500-1000 deliveries, Typically presents within 2 weeks of delivery.
- Often is a manifestation of bipolar disorder.
- Signs/symptoms: Severe insomnia, Rapid mood swings, Anxiety, Psychomotor restlessness, Delusions (childbirth themes), hallucinations, cognitive disturbance, neglecting the infant.
- Assess for suicidal, homicidal/ infanticidal ideations.
- Treatment: mostly similar to treatment of bipolar disorder, consider ECT.
- Antipsychotics except clozapine are mostly compatible with breastfeeding
- Majority fully recover, some may recure only postpartum, few, will end up as BD.
- For women with bipolar disorder, breastfeeding may be challenging! First, on-demand breastfeeding disturb the mother's sleep and thus increase relapse during acute postpartum period.
- Toxicity was reported in breastfed infants exposed to mood stabilizers, including lithium & carbamazepine.

Somatic Symptoms and Related Disorders

◀ Medically Unexplained Symptoms

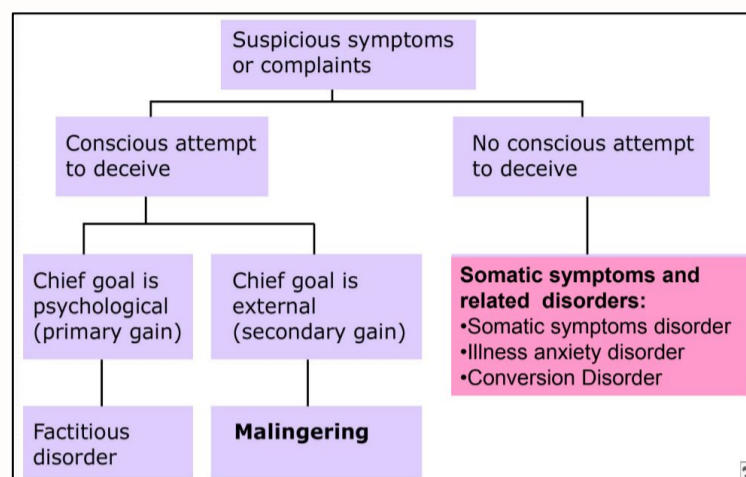
Factitious vs Malingering:

A patient with factitious disorder (AKA Munchausen disorder) enjoys the attention of being medically investigated.

If you told them that you needed to do a surgery to figure out what's wrong with them, they'd be down to do it.

Malingering patients come to the hospital with another goal in mind (sick leaves, medication prescription etc).

If you suggest doing a procedure like a surgery on a malingering patient they'd refuse immediately.



اضطراب الأعراض الجسدية

◀ DSM-5 Criteria of Somatic Symptom Disorder¹

- A. **One or more somatic symptoms** that are distressing or result in significant disruption of daily life.
- B. **Excessive thoughts, feelings, or behaviors** related to the somatic symptoms or associated health concerns as **manifested by at least one of the following:**
 1. Disproportionate and persistent thoughts about the seriousness of one's symptoms.
 2. Persistently high level of anxiety about health or symptoms.
 3. Excessive time and energy devoted to these symptoms or health concerns.
- C. Although any one somatic symptom may not be continuously present, the state of being symptomatic is persistent (**typically more than 6 months**).

***For patients with a medical illness, the reaction would have to be maladaptive, extreme, intrusive, impairing, and grossly in excess.**

Specify if: With predominant pain (**previously pain disorder**): This specifier is for individuals whose somatic symptoms predominantly involve pain.

Specify if: Persistent: A persistent course is characterized by severe symptoms, marked impairment, and long duration (more than 6 months).

Specify current severity:

- **Mild:** Only one of the symptoms specified in Criterion B is fulfilled.
- **Moderate:** Two or more of the symptoms specified in Criterion B are fulfilled.
- **Severe:** Two or more of the symptoms specified in Criterion B are fulfilled, plus there are multiple somatic complaints (or one very severe somatic symptom)

Carol, a 26-year-old homemaker, presented for evaluation of weakness and malaise of 1 year's duration. She also reported a burning pain in her eyes, muscular aches and pains in her lower back, headaches, a stiff neck, abdominal pain "on both sides and below the navel," and vomiting "glassy white stuff—as if I were poisoned."

Six months earlier, Carol had developed blurry vision, complained of a sharp shooting pain in her rectum with walking, and reported passing blood and mucus in her stools. A sigmoidoscopic examination was unremarkable, but she was nevertheless given a diagnosis of mild ulcerative colitis and started on sulfasalazine therapy. Another barium enema examination produced negative results. Five months before her clinic visit, she noted "wasting" of her hands and reported needing a larger glove size for the right hand. She also was concerned with a pulsating vessel and whitish nodules on her hand.

Carol identified additional symptoms during her clinic visit: a burning pain in her pelvis, hands, and feet; heavy vaginal bleeding, passing "clots as large as a fist"; abdominal bloating; malodorous stools with "bits of sudsy mucus"; urinary urgency; cough incontinence; tingling in hands and feet; and a belief that her bowel movements "just don't look right."

Carol was next seen at the same clinic 21 years later, at age 47, for evaluation of multiple somatic complaints. Her symptoms were remarkably similar to those reported earlier, and it was clear that she had never been free of them. Her complaints included a right-sided tremor that caused her to spill food, migratory aches and pains, a feeling of coldness in her extremities, and a heavy menstrual flow ("I used 48 sanitary pads in a single day"). In addition, she reported feeling sick; having abdominal bloating, flatulence, and frequent nausea and vomiting; and being constipated. She was concerned that her skin was becoming darker and that her scalp hair was falling out. An extended medical workup was negative.

Six years later, she was admitted to the psychiatric service. During the intervening years, she had received a total hysterectomy and oophorectomy, but apart from menstruation-related symptoms, she continued to have the same unrelenting physical complaints. Again, a protracted medical workup was negative.

A case presentation of somatic symptom disorder, purely for clarity

TABLE 10-2. Medical symptoms reported by a patient with a somatic symptom disorder

Organ system	Complaint
Neuropsychiatric	"The two hemispheres of my brain aren't working properly." "I couldn't name familiar objects around the house when asked." "I was hospitalized with tingling and numbness all over, and the doctors didn't know why."
Cardiopulmonary	"I had extreme dizziness after climbing stairs." "It hurts to breathe." "My heart was racing and pounding and thumping.... I thought I was going to die."
Gastrointestinal	"For 10 years I was treated for nervous stomach, spastic colon, and gallbladder, and nothing the doctor did seemed to help." "I got a violent cramp after eating an apple and felt terrible the next day." "The gas was awful—I thought I was going to explode."
Genitourinary	"I'm not interested in sex, but I pretend to be to satisfy my husband's needs." "I've had red patches on my labia, and I was told to use boric acid." "I had difficulty with bladder control and was examined for a tipped bladder, but nothing was found." "I had nerves cut going into my uterus because of severe cramps."
Musculoskeletal	"I have learned to live with weakness and tiredness all the time." "I thought I pulled a back muscle, but my chiropractor says it's a disc problem."
Sensory	"My vision is blurry. It's like seeing through a fog, but the doctor said that glasses wouldn't help." "I suddenly lost my hearing. It came back, but now I have whistling noises, like an echo."
Metabolic/endocrine	"I began teaching half days because I couldn't tolerate the cold." "I was losing hair faster than my husband."

1-Ex: a woman has some pains and recently she developed back pains cuz of marital stress, she start going to hospital frequently and thinking of worse prognosis and also start googling.

◀ DSM-5 criteria of Illness Anxiety Disorder

Patient is preoccupied with having or acquiring a specific serious disease, the concern is directed towards the meaning of symptoms or what they represent rather than a direct discomfort from a somatic complaint as in somatic symptom disorder. **It is important to make the distinction!**

- A. **Preoccupation with having or acquiring a serious illness.**
- B. **Somatic symptoms are not present or, if present, are only mild in intensity. If another medical condition is present or there is a high risk for developing a medical condition (e.g., strong family history is present), the preoccupation is clearly excessive or disproportionate.**
- C. There is a **high level of anxiety about health**, and the individual is easily alarmed about personal health status.
- D. The **individual performs excessive health-related behaviors** (e.g., repeatedly checks his or her body for signs of illness) **or exhibits maladaptive avoidance** (e.g., avoids doctor appointments and hospitals).
- E. Illness preoccupation has been present for **at least 6 months**, but the specific illness that is feared may change over that period of time.
- F. The illness-related preoccupation is **not better explained by another mental disorder**, such as somatic symptom disorder, panic disorder, generalized anxiety disorder, body dysmorphic disorder, obsessive-compulsive disorder, or delusional disorder, somatic type.

Specify whether:

- **Care-seeking type:** Medical care, including physician visits or undergoing tests and procedures, is frequently used.
- **Care-avoidant type:** Medical care is rarely used.

Ex: Someone whose father died with gastric cancer, and he is starting doing endoscopy frequently cuz having anxiety about his health

◀ DSM-5 criteria of Conversion Disorder (Functional Neurological Symptom Disorder)¹

- A. **One or more symptoms of altered voluntary motor or sensory function.**
 - B. **Clinical findings provide evidence of incompatibility between the symptom and recognized neurological or medical conditions.**
 - C. The symptom or deficit is **not better explained by another medical or mental disorder.**
 - D. The symptom or deficit **causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or warrants medical evaluation.**
- **Specify symptom type:**
 - With weakness or paralysis
 - With abnormal movement (e.g., tremor, dystonic movement, myoclonus, gait disorder)
 - With swallowing symptoms
 - With speech symptom (e.g., dysphonia, slurred speech)
 - With attacks or seizures
 - With anesthesia or sensory loss
 - With special sensory symptom (e.g., visual, olfactory, or hearing disturbance)
 - With mixed symptoms
 - **Specify if:**
 - **Acute episode:** Symptoms present for less than 6 months.
 - **Persistent:** Symptoms occurring for 6 months or more
 - **Specify if:**
 - **With psychological stressor (specify stressor)**
 - **Without psychological stressor**

1-Ex: A woman caught her husband having a second wife before she confronted him she vomited. When confrontation she couldn't speak she lost her voice (aphonia)

◀ DSM-5 criteria of Psychological Factors Affecting Other Medical Conditions (PFAOMC)¹

- A. A medical symptom or condition (other than a mental disorder) is present.
- B. Psychological or behavioral factors adversely affect the medical condition in one of the following ways:
 1. The factors have influenced the course of the medical condition as shown by a close temporal association between the psychological factors and the development or exacerbation of, or delayed recovery from, the medical condition.
 2. The factors interfere with the treatment of the medical condition (e.g., poor adherence).
 3. The factors constitute additional well-established health risks for the individual.
 4. The factors influence the underlying pathophysiology, precipitating or exacerbating symptoms or necessitating medical attention.
- C. The psychological and behavioral factors in Criterion B are not better explained by another mental disorder (e.g., panic disorder, major depressive disorder, posttraumatic stress disorder).

Specify current severity:

- **Mild:** Increases medical risk (e.g., inconsistent adherence with antihypertension treatment).
- **Moderate:** Aggravates underlying medical condition (e.g., anxiety aggravating asthma).
- **Severe:** Results in medical hospitalization or emergency room visit. **Extreme:** Results in severe, life-threatening risk (e.g., ignoring heart attack symptoms).

Example: Asthma worsened by panic disorder.

◀ DSM-5 Criteria of Factitious Disorder

Factitious Disorder Imposed on Self

- A. Falsification of physical or psychological signs or symptoms, or induction of injury or disease, associated with identified deception.
- B. The individual presents himself or herself to others as ill, impaired, or injured. This will be called (Factitious Disorder Imposed on Self).
 - *However, in Factitious Disorder Imposed on Another (Previously Factitious Disorder by Proxy): The individual presents another individual (victim) to others as ill, impaired, or injured. Note: The perpetrator, not the victim, receives this diagnosis.
- C. The deceptive behavior is evident even in the absence of obvious external rewards.
- D. The behavior is not better explained by another mental disorder, such as delusional disorder or another psychotic disorder.

Specify: Single episode Recurrent episodes (two or more events of falsification of illness and/ or induction of injury)

Factitious Disorder Imposed on Another (Previously Factitious Disorder by Proxy)

- A. Falsification of physical or psychological signs or symptoms, or induction of injury or disease, in another, associated with identified deception.
- B. The individual presents another individual (victim) to others as ill, impaired, or injured.
- C. The deceptive behavior is evident even in the absence of obvious external rewards.
- D. The behavior is not better explained by another mental disorder, such as delusional disorder or another psychotic disorder

Note: The perpetrator, not the victim, receives this diagnosis. Specify: Single episode Recurrent episodes (two or more events of falsification of illness and/ or induction of injury)

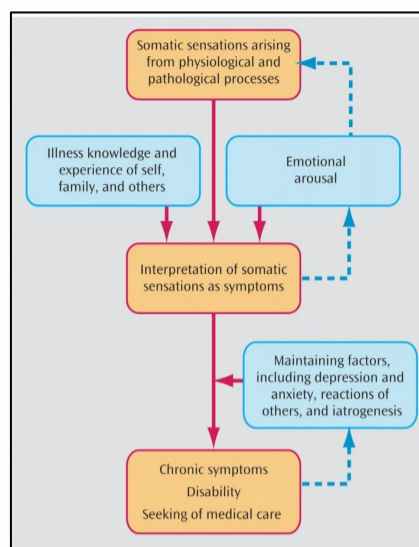
◀ Malingering

Not a DSM-5 diagnosis

- Patient often presents with vague complaints that improve once their desired objective is obtained (e.g., sick leave)

◆ 1-Ex: Man having HTN & with anger it affect the BP & raise it / or bronchial asthma with anxiety can cause panic attacks

◀ Etiology of Somatic Symptoms And Related Disorders

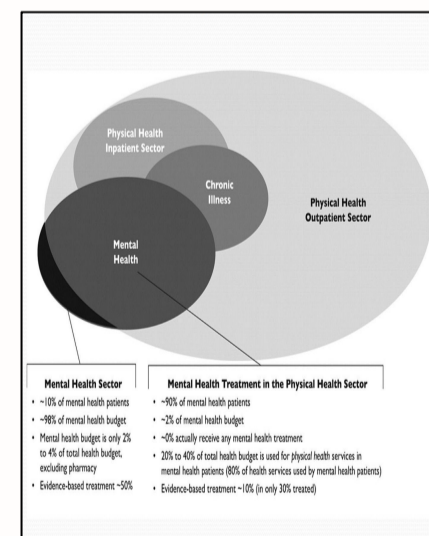


Brain is predictive coding machine which makes and tests predictions about the body rather than constructing perceptions from scratch.

Diagnosis	Prevalence	Gender	Age	Course
somatic symptom d	6% (community) / 17% (primary care). Higher in functional disorders e.g. IBS	F > M	Any age	chronic, waxes and wanes
Illness anxiety d	0.1% (community) / 0.75% (medical outpatient). Higher in unemployed and less educated.	M=F	adolescents	Worsens with age prognosis: Fair
conversion d (FND)	0.1% (community) / 5% (outpatient neurology) Incidence: 5 per 10000 per year (community). Esp. rural areas, lower SES, developing areas, and lower educational levels	F > M	Late childhood - early adulthood	-Acute or sudden: remit in about 2 w *recur in 25% -chronic: poor prognosis
PFAOMC (Psychological Factors Affecting Other Medical Conditions)	Not clear. Up to 30% of patients with medical conditions	?	any age	can be acute or chronic
Factitious Disorder	unknown, 1% of hospital cases / 6% inpatient psychiatric ward. Higher in employment in healthcare and being unmarried	F > M	early adulthood	Episodic

◀ Management of Somatic Symptoms And Related Disorders

Do	Avoid
<ul style="list-style-type: none"> ● Empathize/ Allow patient role ● Emphasize body-brain (mind) connections ● Don't harm. ● Concentrate on functions/ Coping not curing. ● Frequent, regular, short visits with single doctor. ● Assess and treat medical/psychiatric dx either as differential dx or comorbid dx. ● Collaborate with other doctors. ● Individual or Group psychotherapy ● May use SSRIs high doses, esp. for illness anxiety d. 	<ul style="list-style-type: none"> ● Concentrating on Symptoms. ● Need for symptoms to get appointment ● Say (It's just in your mind, take it easy..) ● Tests or Rx without Dx ● Unnecessary Referrals / consultation.



Future of Psychiatry

- Prescribe medication only for concurrent psychiatric disorders
- SSRIs may help in the treatment of illness anxiety disorder (psychotherapy is main treatment, especially CBT)



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Good luck!!



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