DEDICATION

For all our professors

Who Taught us Psychiatry

Prof. Ahmed Okasha

Prof. Moustafa Kamel

Prof. Adel Sadek

Prof. Zienab Bishry

Prof. Farouk Lotaif

Prof. Abdel Monem Ashour

Book title	Essentials of Psychiatry for Undergraduate Medical Students
Editor	Prof. Afaf Hamed Khalil e-mail: profkhafaf@yahoo.com
Edition	2nd Edition, 2008
Date of issuance	2007
Copyright	All Rights Reserved
No. of pages	189
Printing	El Shazly Printing House
Design & Typing	Mr. Amr Mohamed Hasanien
Deposit No.	2568/2007
ISBN	977-298-363-x
Warning	No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior permission in writing of the author, or as expressly by law, or under terms agreed with the appropriate reprographics rights organization. Enquiries concerning reproduction outside the scope of the above should be sent to the Rights Department.
Distributor	Al Manar Medical Library Dr. Mohamed S. Ghazal - Head Office: 1B Maher Bash St.- Abbassia – Cairo – Egypt Tel. & Fax: + (202) 68 225 75 Mobile: + (20) 010 654 11 55 - Bookshop: Ain Shams Faculty of Medicine Tel: +(202) 67 46 618 - E-Mail: almanarlibrary@hotmail.com - Web Site: www.almanarlibrary.com
Institute of Psychiatry	Ain Shams University Hospitals WHO collaborating Center for training & Researches Tel & Fax: 202-6836379 – 6830459 e-mail: info@asuip.net www.asuip.net

Essentials of Psychiatry
for Undergraduate Medical Students
(2nd Edition, 2008)

Editor : Professor AFAF HAMED KHALIL,
MD, FRCpsych, FAPA
Professor and Chair of the Institute of Psychiatry
Ain Shams University

Co-editors : Professor MOHAMED GHANEM
Professor NAGLAA EL-MAHALLAWY, MD
Professor AIDA SEIF EL DAWLA, MD
Professor SAFEYA EFFAT, MD
Professor AHMED SAAD, MD

Contributors :

Prof. Refaat El-Fiky	Prof. Tarek Asaad
Prof. Abdel-Naser Omar	Prof. Mona Mansour
Prof. Maha Sayed	Prof. Alaa Soliman
Prof. Tarek Okasha	Prof. Amani Haroun
Prof. Nahla El-Sayed	Prof. Gihan El-Nahass
Dr. Hisham Rami	Dr. Mohamed Fekry

Assistants :

Dr. Hanan Hussen	Dr. Nevert Zaki
Dr. Heba El Shahawi	Dr. Abeer Mahmoud
Dr. Nermin Shaker	Dr. Ahmed El Missiry

Coordinators :

Dr. Doaa Nader	Dr. Mahmoud El Habibi
Dr. Marwa El Missiry	Dr. Hussin El Kholy

Editing & Cover Design : Mr. Amr Moh'd Hassanien

Administrator : Mrs. Samia Mohamed

Printing Assistants : Mr. Tamer Mohamed Mr. Moh'd Abdel Hameed

PREFACE

Mental health is an important public health issue, as evidenced by the prevalence of psychiatric disorders that are associated with tremendous disability, economic burden and personal suffering.

This book aims to outline the essentials of psychiatry for undergraduate medical students, to allow them to screen, to identify and to treat patients with psychiatric disorders in primary care settings.

Psychiatry is a fascinating field and I hope that this book will be helpful beneficial and informative for you.

Fortunately, this volume has contributions by some of the most prominent professors in this field, who write their respective chapters in an accessible manner.

Finally, it remains for me to thank people who have made this book possible; my deepest gratitude goes to all our contributors and the collaborative efforts of the associate editors and assistants who were always there to deal with all aspects of producing this book.

Prof. Afaf Hamed Khalil

Table of Contents

	Page
Curriculum in Psychiatry	1
Neurotic, Stress Related, and Somatoform Disorders	6
1. Generalized anxiety disorder (GAD)	7
2- Panic disorder	15
3- Phobic anxiety disorders	19
4- Obsessive compulsive disorder	22
5- Stress related and adjustment disorders	25
6- Conversion and dissociative disorders	28
7- Somatoform disorders	33
8- Neurasthenia (chronic fatigue syndrome)	36
Factitious Disorder and Malingering	38
Unexplained Somatic Symptoms	39
Mood Disorders	40
1. Major depression	41
2- Bipolar disorder	46
3- Minor persistent mood disorders	49
Psychotic Disorders	50
1- Schizophrenia	50
2- Acute psychotic disorder	57
3- Schizoaffective disorder	58
4- Delusional disorder	59
Organic Mental Disorders	60
Substance Use Disorders	66
Tobacco Smoking Cessation	70
Personality Disorders	76
Personality and Response to Illness	84

Table of Contents (cont.)

	Page
Sleep Disorders	86
1- Dyssomnias	86
2- Parasomnias	88
3- Sleep disorders related to other conditions	89
Sexual Disorders	92
Eating Disorders	97
1- Anorexia nervosa	97
2- Bulimia nervosa	99
Psychiatric Disorders in Childhood and Adolescents	101
1- Mental retardation	101
2- Attention Deficit Hyperactivity Disorder (ADHD)	103
3- Conduct disorder	105
4- Enuresis	107
5- Functional non organic encopresis	108
6- Stuttering	108
7- Autistic disorder	109
Psychiatric Disorders Associated with Menstruation and Pregnancy	110
Treatment in Psychiatry	112
1- Pharmacotherapy	112
2- Psychotherapy	123
3- Electroconvulsive therapy	125
4- Others Types of therapy	125
Psychiatric Emergencies	126
1- Excitement	127
2- Suicidal behaviour	130
3- Victims of rape, assault and disasters	132
4- Substance use related emergency	132
5- Psychiatric disorder related emergency	134
6- Food Intake problems	134
Psychiatry in Relation to Medicine	135
1- Psychiatric presentation of medical illness	135
2- Psychiatric symptoms of non-psychiatric medications	137
3- Psychosomatic disorders	140
Liaison Psychiatry	143
Doctor Patient Relationship	144
Coping with Physical Illness	150
Ethical and Legal Issues in Psychiatry	154
Psychiatric Interview and Mental State Examination	159
References	169
Appendix (ICD-10 Classification of Mental and Behavioral Disorders)	170

List of Tables

			Page
Table (1)	**:**	Difference between physiological and pathological anxiety	10
Table (2)	**:**	Stress related disorders and adjustment disorders clinical picture and management	26
Table (3)	**:**	Clinical picture of conversion and dissociation	29
Table (4)	**:**	Somatoform disorders: points of differentiation	35
Table (5)	**:**	Clinical picture of neurasthenia	36
Table (6)	**:**	Depression due to general medical conditions	42
Table (7)	**:**	Summary of clinical features of schizophrenia	53
Table (8)	**:**	Subtypes of schizophrenia	53
Table (9)	**:**	Features of delirium and dementia	65
Table (10)	**:**	Clinical features of substance abuse	68
Table (11)	**:**	Intellectual and social functioning in mental retardation	101
Table (12)	**:**	Classes of antipsychotics	118
Table (13)	**:**	Psychiatric symptoms of physical illnesses	136

Curriculum in Psychiatry

Introduction

Psychiatry should constitute a major part in the medical curriculum for the following reasons:

a) Psychiatric problems are common among patients seen by general practitioners and specialists in other medical branches.
b) The importance of acquiring attitudes and skills of forming a good relationship with a patient and assessing mental state, etc....
c) The full orientation of the future doctors to early diagnosis of psychiatric problems will have an impact on reducing the direct and indirect costs of such disorders which is very important for a developing country like Egypt.

Course objectives

After finishing such a course, students are supposed to acquire the following basic knowledge, skills and attitudes:

I- Knowledge:

- Being able to recognize and diagnose appropriately symptoms and manifestations of psychiatric disorders encountered during medical practice.
- Being able to identify, diagnose and manage psychological aspects of medical diseases and organic mental disorders.
- Being able to deal with psychiatric emergencies.
- Being able to recognize, identify and make a proper and early referral of psychotic disorders.
- Knowing and understanding the most commonly used treatment in psychiatry and their side effects.

II- Skills and attitudes:

Students are expected to acquire:

- Interviewing skills
- Doctor - patient interpersonal skills.
- Information gathering skills.
- Ability to evaluate information.
- Prescribing and reporting skills.
- Treatment skills and providing essential lines of management.
- Learning skills for sustaining self-directed and independent learning.

  (Students are expected to right a review on one topic about the relationship between medicine and psychiatry).
- Attitude of integrating humanistic and scientific aspects of knowledge of psychiatry.

Course description

- 20 lectures (one hour each).
- Clinical rounds tutorials (11 working days, 5 hours daily).

Course format

- Lectures 20 hours
- Clinical rounds and tutorials 55 hours
- Total hours 75 hours

Feedback

At the end of the course, the students should fill a feedback form.

Learning resources

Department Book:

Essentials of Psychiatry for Undergraduate Medical Students (1st edition)

Assessment

A) Students will be evaluated at the end of the clinical round shift by:

1- MCQs exam, short essay, written exam.

2- Assessment of the review topic selected by the student.

B) Final year exam:

1-Written exam (Within the general medicine exam)

Examination format: MCQs exam, short essay

This is to assess:

- Recall of information
- Ability to interpret data
- Ability to solve problems

2- Short cases during the clinical general medicine exam

This is to assess:

- Skills of clinical examination
- Attitude and approach to the patient
- Problem solving ability

Topics in clinical rounds

	Subject
1	Introduction
2	Interviewing skills & examination
3	Anxiety disorders
4	Unexplained somatic symptoms
5	Childhood disorders
6	Mood disorders
7	Mental Illness due to general medical conditions
8	Substance abuse
9	Schizophrenia
10	Miscellaneous cases
11	Revision

Lectures

	Subjects	Hours
1.	Introduction	1
2.	Anxiety disorders overview	1
3.	Phobic disorders, OCD, stress related disorders and adjustment disorders	1
4.	Conversion and dissociative disorders	1
5.	Somatoform disorder and unexplained somatic syndromes	1
6.	Mood disorder: major depressive disorder	1
7.	Mood disorder : bipolar disorder and minor depressive disorder	1
8.	Psychiatric presentation of medical illness	1
9.	Psychological factors affecting medical condition : psychosomatic disorders and Liaison psychiatry	1
10.	Substance abuse disorders	1
11.	Schizophrenia	1
12.	Other psychotic disorders	1
13.	Psychiatric emergencies	1
14.	Sexual disorders	1
15.	Eating disorders	1
16.	Sleep disorders	1
17.	Childhood psychiatric disorders	1
18.	Women psychiatric disorders	1
19.	Treatment in psychiatry	1
20.	Revision	1
Total Hours		**20**

Neurotic, Stress Related, and Somatoform Disorders

They include:

1. Generalized Anxiety Disorder.
2. Panic Disorder.
3. Phobic Anxiety Disorders.
4. Obsessive Compulsive Disorder.
5. Stress Related Disorders and Adjustment Disorders.
6. Conversion and Dissociative Disorders.
7. Somatoform Disorders.

1. Generalized Anxiety Disorder (GAD)

Definition:

It is a subjective experience of fear or apprehension without objective reasons. It extends over every aspect of life and is accompanied by autonomic system hyperactivity and physical discomfort. It is persistent over a period of time and sometimes waxes and wanes and often triggered by stressful events.

Epidemiology:

Lifetime prevalence: 5-6% of the population.
Age: Variable, but most common between 20-40 years.
Gender: Equal in both sexes.

Etiology:

A. Biological aspect:

Genetic findings:

- Increased prevalence in twins has shown that genetics play a role.

Neurotransmitters involved:

- Dysregulation of monoamines e.g. Norepinepherine (NE) and serotonin (5HT).
- Dysregulation of inhibitory neurotransmitter GABA.

Anatomical findings:

- Hyperactive locus ceruleus, amygdala.

B. Psychosocial aspect:

- ***Cognitive theory:*** Patients misperceive situations as dangerous when they are not.
- ***Social learning theory:*** Patients learn to respond excessively to stress e.g. through modeling.
- ***Psychodynamic theory:*** Failure of repression of internal conflicts produces anxiety.

C. Stress - diathesis model:

A person who is already biologically predisposed to anxiety, when subjected to stress develops the disorder through activation of the Hypothalamic-Pituitary-Adrenal Axis (HPA Axis).

Symptomatology:

A. Somatic symptoms:

ANS (autonomic nervous system) over-activity:

- Sweating, cold hands.
- Tachycardia, pounding heart.
- Pallor or flushing.
- Dry mouth.
- Blurred vision.

Muscle tension:

- Tension headache.
- Muscle pain.

GIT symptoms:

- Nausea, vomiting, diarrhea and abdominal pain.

Nervous system:

- Tremors.
- Parathesias.
- Hyperreflexia.

Cardiopulmonary systems:

- Tachycardia.
- Systolic hypertension.
- Left mammary chest pain
- Difficulty in breathing or feeling of chocking.
- Syncopal attacks.

Genitourinary:

- Frequency of micturition.
- Dysmenorrhea.
- Impotence.
- Premature ejaculation.
- Sexual Frigidity.

Others:

- Feeling dizzy and unsteady.

B. Psychological symptoms:

- Worry, apprehension, fear and sense of insecurity.
- Irritability, restlessness, hypersensitivity and impatience.
- Easy loss of temper and breaking down in tears.

C. Cognitive symptoms:

- Decreased concentration, distractibility.
- Decreased ability to learn and difficulty in remembering and recall.
- Decreased ability to do ordinary work.
- Exaggerated startle response.

Differential diagnosis:

A. Physiological (normal) anxiety:

Less severe, shorter duration, prominent physiological component, adaptive response (there are objective reasons).There is no suffering with improved performance.

N.B. Pathological (generalized) anxiety: *More severe, longer duration, prominent psychological component, maladaptive response leads to suffering and hinders performance.*

Table (1): Difference between physiological and pathological anxiety

	Physiological (normal anxiety)	Pathological (GAD)
Etiology	Different stressful life events	No apparent external cause
	Adaptive response to objective (environmental) factors	Maladaptive response to subjective (endogenous) factors
Symptoms	Less severe Prominent physiological component	More severe Prominent psychological component
	Shorter duration	Longer duration
Effect on function	Constructive	Destructive
	Improves performance	Deteriorates performance
Management	Needs no treatment	Patient should be treated
Examples	Anxiety during exam periods	Anxiety disorders
	Before traveling abroad	

B. Medical causes:

1- Endocrinal disorders

Hyperthyroidism:

Anxiety symptoms are accompanied with:

- Sweating (warm hands).
- High sleeping pulse.
- Associated symptoms as exophthalmos.
- Elevated thyroid hormones (T3 and T4) and decreased TSH.

Premenstrual tension:

- Anxiety symptoms that recur monthly during the luteal phase of the cycle and are relieved within the first few days of the menstrual flow.

2- Cardiovascular disorders

Heart failure:

As in anxiety, there is irritability, tachypnea, dyspnea, tachycardia, cold extremities. Differentiation is made by:

- History of cardiac disease or medications.
- Examination reveals weak pulse, congested neck veins, congested lungs (basal crepitations) and cardiac gallop.
- ECG and Echocardiography are diagnostic.

3- Respiratory disorders

Chronic obstructive airway disease:

As in anxiety, there is irritability, tachypnea, dyspnea. Differentiation is made by:

- History of chest disease or medication (e.g. Beta stimulants).
- Examination reveals Harsh vesicular breathing, emphysema, crepitations or rhonchi.
- Chest x-ray, CT and respiratory function tests are diagnostic.

4- Neurological disorders

Head injury:

- There is history of head trauma. CT brain and MRI are mandatory.

Parkinsonism:

- Diagnosed by the stooped posture, shuffling gait, rigidity and fine tremors.

Chorea:

- Diagnosed by the involuntary rhythmic proximal semipurposful movements with hypotonia.

5- Autoimmune disorders (collagen diseases)

- Can present with any psychiatric symptoms

Systemic lupus erythremtosis:

- Diagnosed by clinical features e.g. butterfly rash, photosensitivity, hair loss, liver and renal impairment, blood dyscriasis.
- Autoimmune antibodies profile e.g. ANA, Anti DNA, Anti sm. Ab.

Rheumatoid arthritis:

- Diagnosed by clinical features e.g. inflamed, deformed small joints of the hand with ulnar deviation and swan neck appearance of the index finger.
- Autoimmune antibodies profile e.g. Rheumatoid factor.

6- Electrolyte imbalance
7- Vitamin deficiency and anemia

C. Psychiatric disorders:

- ***Phobic disorders:*** Anxiety is situational and associated with phobic avoidance of the anxiety-provoking situation.
- ***Obsessive-compulsive disorder:*** There is evidence of obsessions and/or compulsions to which anxiety is related.
- ***Adjustment disorders:*** There is evidence of a stressor before the onset of anxiety.
- ***Social anxiety:*** Anxiety is only present in relation to social or performance situations due to fear of being embarrassed or humiliated. There is evidence that avoidance of these situations eliminates anxiety.
- ***Mood disorders***
- ***Substance related disorders:***
  - Caffeine intoxication.
  - Withdrawal of CNS depressants e.g. alcohol, sedatives, hypnotics and anxiolytics.
  - Intake of CNS stimulants e.g. amphetamine, ephedrine and cocaine.

In all the above conditions:

- There is history of intake or withdrawal.
- Associated symptoms specific to the substance being used.
- CNS stimulation may even precipitate convulsions.

Course and prognosis:

Generalized Anxiety Disorder usually runs a chronic course with high incidence of comorbidities especially panic disorder and depression.

Management:

I. Pharmacological treatment

1) Benzodiazepines:

Should be used only in severe anxiety for only few weeks (not more than 6-8 weeks) and tapered.

Good practice with benzodiazepines:

- Short - term use of lowest effective dose.
- Use to deal with specific problems.
- Use only in cases of severe anxiety.
- Intermittent dosing (when required).

2) Non benzodiazepines:

- *Buspirone (Buspar)10 mg tab bds.*

3) Antidepressants:

- **Selective Serotonin Reuptake Inhibitors (SSRIs):**
  - Fluvoxamine (Faverin)50 mg tab bds
  - Sertraline (Lustral) 50 mg tab from 1-2 tab/day.
  - Citalopram:(Cipram)20 mg tab from 1-2 tab/day.
  - Escitalopram (Cipralex) 10-20mg/day.
  - Paroxetine (Seroxat) 20 mg tab from 1-2 tab/day.
  - Fluoxetin (Prozac) 20mg cap 1-2 cap/day.
- **Tricyclic anti-depressants:**
  - Sedative antidepressants can be used at lower dose.
  - *e.g. Amitriptyline (Tryptizol): 25 mg tab from 3-6 tab/day.*
- ***Selective Serotonin Nor-epinephrine Inhibitors*** **(SNRIs):**
  - *(Venlafaxin, Efexor 75m XR cap.1to2 cap./day).*
- **Others** :
  - Es-citalopram (Cipralex) 10mg tab 1-2 tab/day.
  - Tianeptin**: (**Stablon) Tab. “one tab. TDS”.

4) Neuroleptics

- Low doses of neuroleptics can be used to help to alleviate anxiety symptoms without inducing dependence.
  - *Trifluoperazine (Stelazine) 1mg up to 3mg/day.*
  - *Moditen one mg in (motival tab 3 tab./day).*

5) Beta blockers:

- For autonomic symptoms and tremors.
  - *Propranolol (Inderal) 10mg tab (up to three tab/day). (Monitor blood pressure, contraindicated in asthma, DM, and AV block).*

II. Non pharmacological treatment:

1. **Psychotherapy:** establishing a good emotional relationship with the patient, trying to understand his/her problems and his/her power of adaptation.
2. **Environmental and social manipulation:** to remove patient from disturbing environment.
3. **Cognitive therapy:** is used to correct cognitive distortions (wrong thinking patterns) that evoke anxiety.
4. **Biofeedback training:** is a form of relaxation training.
5. **Learning skills:** reduce physical symptoms of tension by encouraging the patient to practice daily relaxation exercises.
6. **Encourage the patient to engage in pleasurable activities and exercise**.
7. **Advice and support to patient and family**.

2- Panic Disorder

Definition:

Unexpected, recurrent, intermittent, unpredicted attacks of discrete period of intense fear or discomfort, occurring over a short period develop abruptly and reach a peak within 10 minutes not related to specific situation or object.

Symptomatology:

1- Panic attack:

The attack is associated with at least 4 of the following symptoms

CVS:

- Palpitation, pounding heart, or accelerated heart rate.
- Chest pain or discomfort.

Respiratory symptoms:

- Sensation of shortness of breath.
- Feeling of choking or smothering.

GIT symptoms:

- Nausea or abdominal discomfort.

Nervous symptoms:

- Feeling of dizziness, unsteadiness, or faintness.
- Trembling or shaking.
- Parasthesia (numbness or tingling sensations).

Cognitive symptoms:

- Derealization (feelings of unreality)
- Depersonalization (detachment from self).
- Fear of losing control or going crazy.
- Fear of dying.

Autonomic symptoms:

- Sweating, chills or hot flushes
- Numbness not due to medical conditions or other mental disorder.

For the diagnosis of panic disorder, the patient should have at least 3 attacks in three weeks (for moderate disease) or four attacks in 4 weeks (for severe disease).

2- Anticipatory anxiety:

In between panic attacks patient may have anticipatory anxiety which is persistent concern about having other attacks and/or worry about its implications and consequences may be present.

3- Agoraphobia:

Fear of going to places from which escape might be difficult.

Phobic avoidance:

If the attacks are not treated the patient may develop phobic avoidance and change of behavior related to the attacks.

Complications:

Fear of going outdoors leads to absent from work.

Somatic symptoms leads to high utilization of health services.

Co morbidity of mood disorder or alcohol intake or substance abuse.

Epidemiology:

Lifetime prevalence: 2-3%.
Age: begins before 30.
Sex: more in females.

Etiology:

A. Biological:

Increased sympathetic tone with slow adaptation to repeated stimulation or excessive response to moderate stimulation.

- Locus ceruleus norepinephrine (NE) is increased.
- Median raphe nucleus serotonin (5HT) is decreased.
- Limbic system responsible for (anticipatory anxiety).
- Prefrontal cortex responsible for (phobic avoidance).
- GABA is also responsible.
- Genetic factors also play a role.

B. Psychosocial:

- **Cognitive theory:** Catastrophization of minimal stimuli.
- **Learning theory:** Panic attacks are conditioned responses to fearful situations. Later attacks are produced in response to non-fearful situations.

Differential diagnosis

A. Medical causes:

i- Pheochromocytoma:

- Only somatic symptoms of anxiety, (e.g. hypertension (systolic), tachycardia, sweating, tremors), good response to Regitine.

ii- Insulinomas (hypoglycaemia):

- Tachycardia, marked sweating and tremors.
- History of D.M, recurrent hypoglycemia or intake of hypoglycemic drugs.
- Low blood glucose level.
- Improves by glucose intake.

iii- Cardiac dysrhythmias:

- Tachycardia, sweating, tremors, chest pain.
- Feeling of impending death and sense of choking.
- Diagnosed by ECG.

iv- Mitral valve prolapse:

- Diagnosed by Echo cardiogram

v- Angina and myocardial infarction:

- Tachycardia, marked sweating.
- Chest pain is compressing and may radiate to the shoulder.
- Dyspnea.
- Feeling of impending death.
- Serum enzymes as LDH, SGOT and SGPT are increased.

vi- Bronchial asthma:

- Dyspnea, tachypnea and rhonchi.

vii- Temporal lobe fits:

- There is amnesia after the attack and post-ictal confusion.
- EEG is diagnostic.

viii- Transient ischemic attacks:

- Risk factors e.g. D.M. or hypertension.
- Neurological deficit is evident on examination during the attack.

ix-Acute labyrinthitis

B. Psychiatric causes:

- Other causes of anxiety or mood disorder can present with panic attacks but not panic disorder.

Management:

A. Pharmacological treatment:

1) Tricyclic anti-depressants:

- *Imipramine (Tofranil 25 mg) tab:* Up to 100-150 mg/day.
- *Clomipramine (Anafranil 25 mg) tab:* up to 100-150 mg/d.

2) Selective serotonin reuptake inhibitors (SSRIs):

- Fluoxetine (Prozac 20 mg cap): once/day
- Citalopram (Cipram 20 mg tab): once/day
- Sertraline (Lustral 50 mg tab): once/day
- Fluvoxamin (Faverin 50 tab): once/day
- Paroxetin (Seroxat 20m tab once/ day)

3) Benzodiazepines:

- Alprazolam (Xanax Tab.0.25 – 0.5 mg) 1to2 Tab./day

4) Non benzodiazepines:

- Buspirone (Buspar) 10 mg tab: twice daily.

5) Beta-blockers:

For autonomic symptoms and tremor

- Propranolol (Inderal 10mg tab, up to 30mg daily)

B. Non-pharmacological treatment:

1. ***Supportive psychotherapy:*** To assure the patient.
2. ***Environmental and social manipulation:*** to remove patient from disturbing environment.
3. ***Patient education:*** talking to the patient and family is very important. Explain to the patient what is happening to him/her. Assure the patient that panic attacks do not cause death and he/she will not go crazy or lose control. Encourage the patient not to modify his/her daily activities. Advice the patient to take the following steps if a panic attack occurs:
   - Stay where you are until the attack passes.
   - Concentrate on controlling anxiety, not on physical symptoms.
4. ***Breathing control exercises:*** practice slow relaxed breathing. Controlled breathing will reduce physical symptoms.
5. ***Relaxation techniques.***
6. ***Cognitive & behavioral therapy.***

3- Phobic Anxiety Disorders

Definition:

It is intense fear of specific object or situation, usually associated with avoidance of that situation.

Epidemiology:

It is a common mental disorder.
Lifetime prevalence: 5-15%.
Age: can occur early in childhood.
Sex: more in females.

Etiology

A. Biological:

Genetic: It tends to run in families.
Autonomic: Strong vasovagal reflex.

B. Psychosocial:

Learning theory: it is a learned response either through conditioning or modeling.
Psychodynamic theory: failure of repression of internal conflict.

Symptomatology:

A. Intense fear of an object or a situation. The fear is:

- Out of proportion with the situation.
- Cannot be explained or reasoned.
- Is beyond voluntary control.
- Leads to avoidance.
- Autonomic manifestations symptoms occur only in the feared situation.

B- Psychological symptoms

- Fear.
- Anticipatory anxiety.

C- Physiological, somatic symptoms

- Autonomic manifestation on exposure to the object, palpitation sweating, trembling, dry mouth, breathing difficulty, hot flushes, numbness etc...

D- Behavioral

- Avoidance.

Forms of phobic anxiety disorders:

a) Specific phobia:

- Agoraphobia: fear of open spaces.
- Claustrophobia: fear of closed spaces.
- Acrophobia: fear of heights.
- Nosophobia: fear of illness.
- Xanatophobia: fear of death.
- Zoophobia: fear of animals.
- Fear of blood injection injury.
- School phobia.

b) Social phobia:

Social Phobia is characterized by fear of social situations in which:

- Fear of being the focus of attention or being negatively evaluated in social situation.
- The affected person is exposed to the gaze of others, is being criticized by people, or has to talk in front of people.
- Fear of doing something embarrassing (eating in public speaking to audience etc.).
- Social situations are avoided.
- Social phobias often appear in childhood or adolescence.
- Patient develops intense anxiety with autonomic manifestation on exposure to the phobic situation.

Differential diagnosis:

- ***Depression:*** other criteria for depression are present. e.g. social isolation where the patient prefers to be alone due to disinterest.
- ***Panic disorder:*** commonly associated with agoraphobia, but panic attacks are evident without being precipitated by agoraphobia.
- ***Psychotic disorder:*** phobias may have delusional rationalization.
- ***Temporal lobe epilepsy:*** fears during the attacks followed by amnesia.

Course and prognosis:

Specific phobias of childhood tend to remit by age. If they persist into adulthood, they tend to be chronic, but they rarely cause disability.

Management:

A. Pharmacological treatment:

1) Tricyclic anti-depressants

- Clomipramine (Anafranil 25 mg) tab: up to 150-300 mg/d.

2) Selective serotonin reuptake inhibitors (SSRIs)

- Fluoxetine (Prozac 20 mg cap): 20-40mg/day.
- Citalopram (Cipram 20 mg tab): 20-40mg/day.
- Sertraline (Lustral 50 mg tab): 50-100mg/day.
- Fluvoxamine (Faverin 50mg tab): 50-100mg/day.
- Paroxetine (Seroxat 20mg tab): 20-40mg/day.

3) Benzodiazepines:

- Alprazolam (Xanax 0.25 – 0.5 mg) 1 to 2 tab./day.
- Revise good practice.

***4) Non benzodiazepines*:**

- Buspirone (Buspar) 10 mg tab: twice daily.

5) Beta-Blockers: *(for autonomic symptoms and tremors)*

- Propranolol (Inderal 10mg tab.): up to 30mg daily.

B. Non-pharmacological treatment:

1) Supportive psychotherapy

2) Behavioral therapy

- Systemic desensitization.
- Flooding technique.
- Learning relaxation techniques with graded exposure to feared object or situation or during flooding.
- Social skill training in social phobia.

3) Cognitive therapy:

- Correct cognitive distortion.

4) Social and environmental manipulation

4- Obsessive Compulsive Disorder

Definition:

Undesired, irrational subjective experiences of compulsions or obsessions

- Unwanted thought, urges or actions.
- Uncontrolled (patient tries to resist).
- Unacceptable (patient realizes to absurdity).

Epidemiology:

Lifetime prevalence: 2-3%.
***Age of onset*:** 15-25 years.
Sex: equal in both sexes.

Etiology:

A. Biological:

1) ***Genetics:*** more in monozygotic twins.
2) ***Neurotransmitters:*** serotonin dysregulation.
3) ***Anatomical:*** basal ganglia and frontal lobe hyperactivity.

B. Psychosocial:

1) Learning theory:

- ***Classical conditioning:*** obsessions are conditioned stimuli that evoke anxiety through coupling neutral stimuli with noxious stimuli.
- ***Operant conditioning:*** compulsions are learned through operant conditioning.
- Certain actions (compulsions) reduce anxiety (reinforcement).

Symptomatology:

1- Obsessions:

- Recurrent or persistent ideas.
- Recognized as own.
- Unwanted, unacceptable (patient realizes they are absurd).
- Uncontrolled (patient tries to resist).

- **Examples:**

a. ***Obsessional ideas and thoughts:*** repeated and intrusive words or phrases which are usually upsetting to the patient
b. ***Obsessional ruminations:*** endless questions and ideas of a complex nature.
c. ***Obsessional doubts:*** uncertainty about actions e.g. whether or not the person turned off a gas tap that might cause a fire.
d. ***Obsessional impulses:*** repeated urges to carry out actions
e. ***Obsessional phobias:*** obsessional thoughts with a fearful content
f. ***Obsessional images***: mental images that intrude themselves to the patient's mind and cannot be ignored.

2- Compulsions:

- Repetitive voluntary behaviors.
- Patient feels driven to perform it.
- Examples:
  Motor acts (excessive washing, checking, arranging, touching, etc.)
  Mental acts (praying, counting, repeating words silently etc.)
- Strong urge to perform an action patient recognizes that these actions are unnecessary but unable to resist.

3- Anxiety:

- There is marked distress due to obsessions and compulsions.

Differential diagnosis:

1) Brain diseases:

- Subcortical brain lesion, Parkinson's disease.
- Neurological deficit and MRI brain are diagnostic.

2) Systemic diseases affecting the brain:

Pediatric autoimmune neuropsychiatric disorders following streptococcal infection (PANDAS). History of repeated streptococcal infections, temporal relation between infection and symptom onset and offset and ASOT are diagnostic.

3) Psychiatric disorders:

Obsessions may occur with schizophrenia, major depression…etc.

Course and prognosis:

- 20-30%: significant improvement.
- 40-50%: moderate improvement.
- 20-30%: no improvement.

Management:

A. Pharmacological treatment:

1) Tricyclic anti-depressants:

Clomipramine (Anafranil 25 or 75 mg) tab: 150-300 mg/ day.

2) Selective serotonin reuptake inhibitors (SSRIs):

- Fluoxetine (Prozac 20 mg cap): 20-40 mg/d day.
- Citalopram (Cipram 20 mg tab): 20-40 mg/d day.
- Sertraline (Lustral 50 mg tab): 50-100mg/d day.
- Fluvoxamine (Faverin 50 tab): 50-100mg/day.
- Paroxetine (Seroxat 20 mg tab): 20 -40 mg/day.
- Es-citalopram (Cipralex 10 mg tab) : 10-20 mg/day.

3) Benzodiazepines:

- Alprazolam (Xanax 0.25 – 0.5 mg): 1-2 tab./day.

4) Non-pharmacological treatment:

- Behavioral therapy.
- Cognitive therapy.
- Supportive psychotherapy.
- Social and environmental manipulation.

5- Stress Related and Adjustment Disorders

Definition:

These are disorders that are directly precipitated by stressful life events.

They include:

- Acute stress reaction.
- Post Traumatic Stress Disorder **(PTSD).**
- Adjustment Disorder.

Epidemiology:

Age: not dependent on the subject but on the occurrence of traumatic events.

Risk factors: pathological personality disorder or past psychiatric history.

Etiology:

A. Biological:

1. ***Neurotransmitters dysfunction:*** the role of norepinphrine (NE), dopamine (DA), endogenous opiates and benzodiazepines is suggested.
2. ***Anatomical:*** hypothalamic–pituitary-adrenal axis hyper-activity. Increased responsiveness of the autonomic nervous system.

B. Psychosocial:

Cognitive theory: the affected persons are unable to process or rationalize the trauma that precipitated the disorder, hence, they experience alternating periods of acknowledging the event and blocking it.

Table (2): Stress related disorders and adjustment disorders clinical picture and management

	Acute stress reaction	PTSD	Adjustment disorder
Stressor	Exceptional overwhelming stressor e.g. catastrophe or disasters • Combat • Rape • Accidents • War		Moderate stressor, commonly chronic. **As in:** • Separation • Bereavement • Migration
Relation to stress	Clear temporal connection From minutes to hours after stress	Delayed or protracted. May take weeks to months	Within 3 months of occurrence of stressor
Duration	Resolves within 3 to 30 days	May last months to years	Does not exceed 6 months
Clinical picture	1. Intense subjective anxiety 2. Patient may seem disoriented. 3. Reduced sleep. 4. Nightmares	1. Re-experience: Flashbacks or nightmares about the trauma. 2. Avoidance: Efforts to avoid thoughts, feelings conversations, places and people associated with the trauma. 3. Diminished interest, feeling detached, reduced range of affect. 4. Sense of foreshortened future (does not expect to have a career or lead a normal life). 5. Anxiety symptoms, bouts of anger, somatic symptoms, impulsivity, self destructive behavior, and depressive symptoms 6. Difficulty in concentration 7. Abnormal behavior: alcoholism and addiction	Symptoms of anxiety: • Insomnia • Irritability Symptoms of depression: • Sadness • Loss of interest
Treatment	- Reassurance - Anxiolytics for few days	- Ventilation with associated emotional support - Cognitive behavioral psychotherapy - Antidepressants and/or anxiolytics according to symptoms	- Encourage patient to ventilate feelings. - Encourage patient to develop problem solving strategies - Antidepressants and anxiolytics

Differential diagnosis:

Organic brain syndrome: *head trauma, epilepsy,* neurological deficit. CT brain, MRI and EEG are diagnostic.

Substance induced psychiatric disorder: history of the substance abuse and withdrawal.

Other psychiatric disorders: e.g. *depression*. here symptoms of depression are present and there is no history of stressor.

Dissociative, factitious and malingering *(*See later).

Course and prognosis:

The outcome is unpredictable.

Management: (see table 2).

6- Conversion and Dissociative Disorders

Definition:

These are disorders presenting with physical or behavioral changes that have no organic cause, but instead are due to underlying psychological factors, of which the patient has no conscious awareness. The production of these symptoms is associated with primary gain to relieve anxiety and a secondary gain e.g. seeking attention or escaping problems.

Epidemiology (vary according to the different culture):

- ***Conversion:*** Lifetime prevalence one third of the general population (common). More in females, especially younger females, who are socially and educationally unprivileged.
- ***Dissociative disorders:*** Can occur within another psychiatric disorder e.g. depression. Genuine dissociation is uncommon.

Etiology:

A. Biological:

Hypometabolism of the dominant hemisphere and hypermetabolism of the non-dominant hemisphere suggest impaired hemispheric communication.

B. Psychosocial:

Psychoanalytic theory:

Conversion: internal psychological conflict, which is converted (conversion) into physical symptoms, which commonly have an association in some way to the original conflict (symbolization).

Dissociative disorders: internal psychological conflict, which cannot be allowed into consciousness and initiates for defense mechanism. It is termed dissociation because there is loss of integration of mental functions e.g. loss of memory. The patient is conscious and functioning normally.

Symptomatology:

Characteristics of conversion and dissociative symptoms:

- Subconscious production of signs and symptoms.
- Secondary gain:
  - *Seeking attention.*
  - *Escape from anxiety.*
- Psychological causation.
- No evidence of physical disease.
- Discrepancy between symptoms and anatomical and physiological basis of the organ affected.
- Changeability, variability and atypicality of symptoms.
- Indifferent attitude towards the symptoms.
- Liability to suggestion.

Table (3): Clinical picture of conversion and dissociation

a) Conversion

Motor	Sensory	Visceral
Paralysis	Parasthesia	Dysparunia
Aphonia	Anesthesia	Hiccough
Fits	Blindness	Vomiting
Tics	Deafness	Retention of urine
Torticollis	Pain	Pseudo pregnancy
Abnormal gait		

b) Dissociation

Cognitive	Consciousness	Others
Amnesia: sudden onset, sudden offset	Fugue	Somnambulism
and related to stressful event	Stupor	Multiple personality
	Coma	Pseudodementia

Differential diagnosis:

How can you differentiate between hysterical fits and epileptic fits?

Hysterical fits	Epileptic fits
▪ May be either tonic or clonic ▪ Patients rarely hurt themselves ▪ Occur in front of audience ▪ Do not occur during sleep ▪ Absence of incontinence, cyanosis, biting of the tongue ▪ Patients attempt to pull their hair or tear their clothes.	▪ Tonic then clonic ▪ Patients usually injure themselves ▪ Occur at any time ▪ Can occur during sleep ▪ Cyanosis, incontinence, and tongue biting occur ▪ Absent

How can you differentiate between organic and hysterical hemiplegia?

Hysterical hemiplegia	Organic hemiplegia
▪ No clonus or exaggerated reflexes ▪ Proximal weakness is more ▪ Flexor plantar response ▪ Contractures are rare ▪ Gait is extended ▪ No cranial nerve affection	▪ Clonus & exaggerated reflexes ▪ Distal weakness is more ▪ Extensor plantar response ▪ Contractures occur ▪ Circumduction gait ▪ Cranial nerves are affected

How can you differentiate between hysterical coma and hypoglycemic coma?

Hysterical coma	Hypoglycemic coma
▪ In front of audience ▪ Sweating, tachycardia, pallor may not be present ▪ Responsive to painful stimuli ▪ History of stress or psychological problem ▪ Vital signs are normal ▪ No convulsions ▪ No effect of IV glucose	▪ Anywhere ▪ Sweating, tachycardia, pallor ▪ Not responsive to painful stimuli ▪ History of not eating or insulin overdose ▪ Pallor and tachycardia are present ▪ Convulsions may occur ▪ Good response to injection of IV glucose

How can you differentiate between organic hemianesthesia and functional hemianesthesia?

Organic hemi anesthesia	Functional hemi anesthesia
▪ Follows anatomical distribution ▪ Hyposthesia ▪ Patient can feel pin prick ▪ No history of psychological problems ▪ May be secondary to brain lesion or other medical disorder	▪ No anatomical distribution ▪ Complete anesthesia ▪ Patient cannot feel pin prick ▪ History of psychological problems is present ▪ Not associated with other medical disorder

How can you differentiate between psychogenic amnesia & amnesia due to other conditions?

Psychogenic amnesia	Amnesia due to other conditions
▪ Sudden loss of memory usually precipitated by emotional trauma. ▪ Patient is alert and aware of loss. ▪ Most common type of loss is circumscribed amnesia, in which the events of a short period of time are lost. ▪ The patient is indifferent to the memory loss. ▪ Mild clouding of consciousness may occur in some cases.	***1- Organic mental disorders:*** ▪ Not related to stress ▪ More common in elderly ▪ Full return of memory rare and very gradual ▪ Clear organic factor in history ***2- Malingering:*** ▪ Conscious attempt to fake loss of memory for secondary gain.

Differential diagnosis:

A complete physical and neurological examination is required to exclude organic causes.

Course and prognosis:

- ***Conversion:*** most cases resolve in few days or less than a month. 25% may have additional episodes during periods of stress.
- ***Dissociation:*** amnesia and fugue are usually brief, while multiple personality and depersonalization tend to be chronic.

Treatment:

- Help the patient to deal with the conflict.
- Remove the symptom by suggestion.
- Explore psychopathology by abreaction.
- Psychotherapy: supportive.
- Pharmacotherapy for comorbid anxiety and depression.
- Do not admit to hospital.
- Do not ask leading questions to avoid suggestion.
- Keep the patient at work.

Guidelines to general practitioners:

- Patients with dissociative or conversion disorders present with unusual dramatic physical symptoms, such as fits, amnesia, loss of sensation, visual disturbances, paralysis, aphonia, identity confusion.
- The physical symptoms are not consistent with known disease, but you have to examine the patient physically and carefully.
- Search for a recent stress.
- Amytal exploration will reveal some of the unconscious mechanisms.
- Do not hospitalize the patient.
- Encourage the patient to recover.
- Symptoms may disappear suddenly.
- Symptoms may recur in a different form.
- Avoid anxiolytics or sedatives.
- Psychotherapy and social support is the main line of treatment.

7- Somatoform Disorders

Definition:

These are a group of disorders that include physical symptoms for which an adequate explanation cannot be found. The symptoms cause marked distress and impairment of function. Psychological factors contribute much to their production.

Etiology:

A. Biological:

- ***Genetic:*** Positive family history is common. There are high concordance rates in monozygotic twins than dizygotic twins.
- Faulty assessment of somatosensory input.

B. Psychosocial:

1- Psychodynamic:

- Repression of anger towards others is turned against self.
- Affected organ may have a symbolic meaning.
- Identification with parents who model the sick role.

2- Learning theory:

- Operant conditioning: pain behaviour is stabilized when rewarded (gaining attention and avoidance of disliked activities).

Symptomatology

Main features:

- Repeated medical consultation for physical symptoms.
- No adequate physical basis.
- Repeated request for investigations in spite of negative findings and reassurance.
- Relationship between stressful event or emotional conflicts and appearance of symptoms.
- Patient usually resists attempt to discuss possibility of psychological causation.
- It may be accompanied by attention seeking behavior, anxiety, depression and impaired social and occupational functioning.

Types and epidemiology:

1- Somatization disorder:

- Life time prevalence: 0.1-0.2%,
- Females more than males.
- Adolescence and young age.
- Common in less educated persons and low socioeconomic groups.

2- Hypochondriasis disorder:

- 10% of all medical patients.
- Males and females are equally affected.
- Occurs at all ages.

3- Somatoform autonomic disorder

4- Somatoform pain disorder:

- 30-40 years.
- Females more than males.

Treatment guidelines:

- Trusting doctor patient relationship.
- Discourage doctor shopping.
- Minimize laboratory and medical intervention.
- Supportive psychotherapy.
- Cognitive therapy.
- Anxiolytics and antidepressants.

Table (4): Somatoform disorders: points of differentiation

	Somatization disorder	Hypochondriasis	Somatoform autonomic disorder	Somatoform pain disorder
Complaint & presentation	Multiple, recurrent fluctuating, frequently changing physical symptoms (GIT, sexual, pain, cardiac etc.), referred to any part of the body. Anxiety or depression may be present Long standing symptoms High utilization of health services.	Morbid preoccupation and excessive concern that the patient has serious disease of one or two organs. The fears are not of delusional quality but persist in spite of reassurance. The patient is worried about his symptoms	Symptoms are referred to organs, which are under ANS control e.g. heart (cardiac neurosis), chest (hyper ventilation), GIT (psycho-genic vomiting). Symptoms of ANS arousal as palpitation, sweating, tremors.	Severe and distressing pain, which cannot be explained by a physical disease It is associated with psychological problem or conflicts. It may be associated with impaired social or occupational functioning.
Concern of the patient	Symptoms	Illness	Symptoms	Pain
Symptoms	More than one system	One or two organs	Autonomic	Pain
Duration	Years	6 months	6 months	6 months
Differential Diagnosis	**Organic diseases.** **Psychiatric disorders:** Anxiety Depression Conversion Delusional disorder Other Somatoform Disorder **Factitious disorder** **Malingering**	**Organic diseases.** **Psychiatric disorders:** Delusional disorder Anxiety disorder Panic disorder OCD Somatization Other Somatoform Disorder **Factitious disorder** **Malingering**	**Organic diseases.** **Psychiatric disorders:** Anxiety disorder Panic disorder	**Organic diseases.** **Psychiatric disorders:** Conversion disorder Somatization Hypochondriasis Malingering Other Somatoform Disorder

8- Neurasthenia (chronic fatigue syndrome)

Definition:

Severe disabling psychogenic fatigue usually of chronic course

- Not due to exertion and not resolved by rest.
- Not secondary to:
    - **Medical diseases:**
        - Infections (viral or bacterial).
        - Malignancy.
        - Autoimmune or collagen.
        - Endocrinal.
        - Hematological e.g. anemia.
        - Chest diseases.
        - Sleep disorders e.g. sleep apnea.
        - Metabolic diseases e.g. D.M
        - Drug-induced (Beta-blockers, steroids etc.).
    - **Psychiatric diseases:**
        - Anxiety.
        - Depression.
        - Adjustment disorder.

Table (5): Clinical picture of neurasthenia

Somatic	Cognitive	Psychological
Physical fatigue	**Intellectual fatigue**	**Lack of drive**
Exhaustion	Decreased concentration and attention	Loss of spirit
Weakness	Difficulty remembering. (forgetfulness)	Dysphoria
Sleep problems		Decreased sexual desire
Decreased capacity to work		
Pain		

Risk factors:

- Over-work, both:
  - Physical (athletes).
  - Intellectual (at exam time).
- Premenstrual, post-partum or menopausal periods.
- Slimming.
- Old age.
- After physical illness or infections.

Management:

A. Pharmacological:

1) Sulbutiamine *(Arcalion)* 200mg tab. Tabs after breakfast.
2) Selective serotonin reuptake inhibitors (SSRIs).

B. Non-pharmacological

1. Behavioral and cognitive therapy.
2. Increasing levels of physical activity.
3. Breathing and relaxation exercises.
4. Supportive psychotherapy.

Factitious Disorder

Presentation:

- Voluntary induction of physical symptoms (e.g. heamoptesis).
- Multiple hospitalizations.
- Multiple operations and/or investigations.
- Severe acute symptoms, such as abdominal pain and bleeding tendencies.
- Abuse of analgesics and sedatives.
- It is associated with sickness role behavior, in order to be exempted from work or obligations.
- Usually called "Thick file syndrome".

Motive:

- Subconscious motive to assume the sick role.

Attitude to clinical examination:

- Willing to be examined and investigated.

Malingering

Presentation:

- No mental disorder.
- Voluntary production of false physical and/or psychological symptoms.
- To avoid;
    - Military service.
    - Severe distress at work.
- For compensation.
- Criminal penalty.
- Obtain drugs.

Motive:

- Conscious motive.

Attitude to clinical examination*:*

- Resisting.

Unexplained Somatic Symptoms

Definition:

- Somatic symptoms not due to medical causes.

Why do patients present with somatic instead of psychological symptoms?

1. Fear of stigma of mental illness.
2. Negative attitude to psychiatric symptoms.
3. Inability to express emotions.

Differential diagnosis:

1. Anxiety disorders.
2. Panic.
3. Depression.
4. Conversion disorder.
5. Somatoform:
    a. Somatization.
    b. Hypochondriasis.
    c. Psychogenic pain disorder.
6. Neurasthenia.
7. Secondary to psychosis.
8. Factitious disorders.
9. Malingering.

N.B.: *Each point should be explained in some details.*

Mood Disorders

Definition:

Mood disorders are disorders, in which the predominant symptom is a change in mood.

The mood state may be:

- Depression, occur in depressive episodes,
- Euphoria and elation occur in manic episodes.

Types:

1- Unipolar major depression.
2- Bipolar disorder.
3- Minor mood disorders (Dysthymia, Cyclothymia).
4- Mood disorders secondary to general medical conditions.
5- Substance induced mood disorder.
6- Mood disorders secondary to other psychiatric disorders.

Etiology:

A. Biological factors:

Decreased biogenic amines: mood disorders are due to heterogeneous dysregulation of the biogenic amine system in the brain involving neurotransmitters such as norepinephrine, serotonin, and dopamine.

Neuroendocrinal disturbance: abnormalities of the hypothalamo-pitutary adrenal axis LHPA axis and raised cortisol levels are the most consistent findings and this may be the cause of disturbance of biogenic amines.

Genetic factors: there is a genetic predisposition more pronounced in bipolar disorders.

B- Psychosocial factors:

Life events and stresses: life events play a role in depression e.g. Loss of parent before age of 11 years, loss of spouse, and unemployment.

Cognitive theory: patient has negative self view, negative interpretation of experience and negative view of future.

1. Major Depression

Definition:

Depression is a common, chronic relapsing disorder associated with morbidity, mortality and economic burden.

Depression can start at any age but most commonly between the ages of 25-45.

Epidemiology:

- Incidence 3-7% of the population.
- Life time prevalence: 10-20%.
- Female to male ratio: 2: 1.
- Depressive illness is strongly associated with medical diseases. Up to 30-50% of patients attending other physicians have depressive symptoms and this may influence the patient's adherence to his physical treatment as well as the outcome of his medical diseases.

Clinical picture:

1. Psychological symptoms

a- Depressed mood and sadness (usually there is diurnal variation, which means that the symptoms are more severe in the morning).

b- Loss of interest and lack of enjoyment.

c- Sense of emptiness, helplessness, hopelessness, worthlessness, pessimism, death wishes, suicidal thoughts, loss of self esteem, self blame and guilt.

d- Psychotic symptoms may be found in severe cases and are going with the theme of low mood. These include:

Delusions of guilt, nihilism, poverty, hypochondriasis,

Hallucinations: auditory, visual etc. (*All delusions or hallucination are mood congruent*)**.**

2. Physiological (somatic symptoms):

- Diminished appetite, fatigue and loss of energy.
- Weight loss.
- Loss of libido.

- Sleep disturbances: insomnia, early morning awakening interrupted sleep.
- Pains (headache, back pain).
- Digestive upsets, loss of appetite, loss of weight.
- *(Sometimes-atypical symptoms occur e.g. (increased appetite, hypersomnia).*

3. Behavioral symptoms
- Negligence of self-care.
- Social withdrawal, suicidal attempts.

4. Motor, cognitive symptoms
- Difficulty in attention and concentration.
- Slow thinking.
- Psychomotor retardation or agitation.

5. Impaired social and occupational functioning

Differential diagnosis of depression:

Table (6): Depression due to general medical conditions

System	Examples
Cardiovascular	Cardiomyopathy, cerebral ischemia, CHF, MI
Neurologic	Alzheimer's disease Multiple sclerosis Parkinson's disease, head trauma, narcolepsy, brain tumor, Wilson's disease
Cancer	Pancreatic cancer, lung cancer
Endocrine	Hypothyroidism, hyperthyroidism, Cushing's disease, Addison's disease, hypoparathyroidism, hyperparathyroidism, hypoglycemia, pheochromocytoma, ovarian or testicular failure
Infectious diseases	Syphilis, mononucleosis, hepatitis, AIDS, tuberculosis, influenza, encephalitis, Lyme disease
Nutritional deficiencies	Folate, B_1, B_2. B_6, B_{12}, iron
Collagen diseases	Rheumatic arthritis, SLE
Electrolytes inbalance	Hyponatremia, hypokalemia, hypercalcemia.

2- Depression secondary to substance abuse or other non-psychoactive drugs.

Substance induced depression:
Drugs of abuse: sedatives, Hypnotics, Opioids, Phencyclidine
Medication: oral contraceptives, corticosteroids, reserpine, alphamethyldopa, guanethidine, levodopa, indomethacin, benzodiazepines, opiates, cimetidine, propranolol, anticholinesterases, amphetamine withdrawal.
Toxins: heavy metal poisoning.

3- Depression secondary to other psychiatric disorders Schizophrenia, dementia, personality disorders, anxiety etc... The symptoms of the other psychiatric disorder are present.

Investigations:

- To rule out organic conditions and substance abuse.

Management:

Most depressive illnesses can be managed in the primary care setting, especially those with mild or moderate symptoms.

Management starts with risk assessment, in terms of self-neglect and suicide.

Psychiatric referral is indicated if:

- Suicide risk is high.
- Severe depression or psychotic depression.
- Non response to treatment.

A) Hospitalization:
Indications:

- Suicidal risk.
- Refusal of food or medication.
- Severe agitation or retardation.
- Psychotic symptoms.
- Severe depression.

If there is one of the previous criteria of hospitalization, you have to refer the patient to the psychiatrist.

B) Pharmacotherapy:

Tricyclic Antidepressants (TCAs)

e.g. Imipramine (Tofranil), Amitriptyline (Tryptizole) Dose: 75 – 150 mg/day).

Selective Serotonin Reuptake Inhibitors (SSRIs)

e.g. Fluoxetine (20 mg), Fluvoxamine (100-150 mg), Sertraline (50 mg) & Citalopram (20 mg), Paroxetine (20mg).

Selective Serotonin Norepinephrine Inhibitors (SNRIs)

e.g. Venlafaxine (Efexor) 75mg-150mg.

Other drugs

- Escitalopram (Cipralex) 10-20mg tab.
- Tianeptin (Stablon) one tab. Tds.
- Bupropion (Wellbutrin one tab/day) 150mg tab.
- Mirtazapine (Remeron) 30mg tab/day.

C) Electro-convulsive therapy (ECT):

8-12 settings (2 sessions/week).

Indications:

- Severe cases.
- Psychotic symptoms.
- Refractory to drug treatment.
- Suicidal symptoms.
- Severe agitation or retardation.

D) Psychosocial therapy:

- Cognitive therapy, to eliminate negative thoughts.
- Supportive psychotherapy.
- Social, marital, family therapy.
- Patient education.

Phases of treatment:

Acute phase: 4- 6 weeks

Continuation phase: continue the same drug and same dose used in acute phase for 6-8 months then start gradual discontinuation.

Prophylaxis: long-term treatment to prevent recurrence.

Guidelines for general practitioners (GPs) and house officers:

- Do not forget that the patient may present initially with physical symptoms, such as fatigue or pain.
- Further enquiry will reveal the most important two symptoms: Low or sad mood and loss of interest or pleasures.
- Ask about other associated symptoms, such as disturbed sleep, guilt, poor concentration, agitation or retardation, disturbed appetite, disturbed Libido, suicidal thoughts or acts.
- Never forget the proper assessment of suicidal risk.
- Look for associated psychotic features i.e. delusions and/or hallucinations.
- If the patient has a history of manic episodes consider bipolar disorder. In such case mood stabilizers are absolutely indicated. So you have to refer the case to psychiatrist.
- If the patient has responded well to a particular drug in the past, use that drug again.
- Explain to the patient and relatives the expected side effects.
- Explain to the patient and relatives that improvement will build up over two or three weeks.
- ECT is very safe and is reserved for severe cases and suicidal patients.

Course and prognosis:

- The prognosis for individual episodes is generally good, even when the illness is severe.
- Mild cases tend to improve with minimal intervention.
- About 70% with moderate to severe illness respond to treatment within 6 weeks.
- Depression is a recurrent disorder in about 50% of cases.
- The suicide rate is as high as 15% in cases with severe illness.

2- Bipolar Disorder

Definition:

Episodes of both depression and mania or hypomania occur in separate episodes with a period of full or partial remission in between episodes.

Epidemiology:

- Lifetime prevalence 1-2%.
- Females to males ratio 1:1.
- Age of onset 20-30 year.

Clinical picture of manic episode:

1) Psychological:

- ***Mood:*** elation, euphoria, and irritability.
- ***Thinking:*** racing thoughts, flights of ideas. Mood related psychotic symptoms e.g. delusion of grandiosity and power.
- ***Speech:*** hypertalkativeness in a loud and rapid voice.
- ***Judgment:*** impaired.

2) Behavioral:

- Hyperactivity, restlessness.
- Grandiose attitude and inflated self-esteem.
- Increased sociability, aggression and excitement.
- Enthusiasm, multiple projects.
- Sexual and social disinhibition.
- Wearing bright colors and excessive cosmetics.
- Over spending of money.

3) Physiological:

- Increased or full energy and lack of sense of exhaustion.
- Decreased need to sleep.
- Increased sexual activity.
- Excessive eating.

4) Cognitive and psychomotor:

- Hyperactive.
- Psychomotor agitation.
- Distractibility.

***N.B**. hypomania is the term used to describe mild or moderate degree of mania*

Differential diagnosis:

- **Mania due to general medical conditions**
  - Endocrinal diseases e.g., thyrotoxicosis.
  - Collagen diseases e.g. SLE.
- Infections: encephalitis, influenza.
- CNS diseases: Wilson's disease, head trauma, epilepsy, tumor of brain.
- **Drug induced mania**
  - Substance of abuse: Amphetamines, Ephedrine, and Cocaine abuse.
  - Medications: Steroids, L-Dopa.

Management of mania:

A) Site of the treatment:

Outpatient clinic in mild cases (hypomania).
Hospitalization in severe cases.

B) Pharmacological treatment:

Acute phase (6 months)

Conventional antipsychotics

- Haloperidol (*Safinace*) 5 mg (15- 30 mg/day).
- Chlorpromazine (*Largactil*) 100 mg (600 mg/day).
- Long acting Haloperidol decanuos injection 50 mg amp (1-2 amp /month).

Atypical antipsychotics

- Olanzapine (Zyprexa) 10 mg tab (1-2 tab/day).
- Risperdone (Risperidal) 4mg tab (1-2 tab/day).
- Quetiapen (Seroquel) 200 mg tab (1-3 tab/day).

Mood stabilizers

- Lithium carbonate (*Prianil*) 400 mg (2 tab/ daily).
- Anti-epileptics as: Na valporate, valproic acid (*Depakine chrono*) 500 mg/tab (1-3 tab/day).
- Carbamezapine (*Tegretol*) 200mg/tab (3-6 tab/day).

Maintenance (2 years at least):

Mood stabilizers

- Lithium carbonate serum level (0.6-1.1 meq/lit).
- ***N.B.:*** *serum lithium levels must be monitored regularly. (ECG, Thyroid function, pregnancy test should be checked before starting treatment)*
- Anti-epileptics as: Na valporate, valproic acid (*Depakine chrono*) 500 mg/tab (1-3 tab/day).
  Carbamezapine (*Tegretol*) 200mg/tab (3-6 tab/day).

C) Electroconvulsive therapy (ECT):

- 8-12 settings (twice weekly).

D) Psychosocial therapy:

Cognitive behavioral therapy*:* It has no role during the attack, but it can have a role to prevent further attacks during the prophylaxis stage.

Social and family intervention:

Course and prognosis:

- Variable with a high relapse rate.

3- Minor Persistent Mood Disorders

I- Dysthymia:

Clinical picture:

- Insidious onset, persistent or fluctuating course and social maladjustment.
- Chronic depression not fulfilling criteria for major depression.
- Mild or moderate severity.
- Persistent or fluctuating.
- *Mood*: depression and irritability.
- *Appetite*: increased or decreased.
- *Sleep*: increased or decreased (insomnia or hypersomnia).
- Decreased energy and low self-esteem.
- Decreased concentration and fatigue.
- *Not secondary to organic or other psychiatric disorders.*

Duration:

- At least 2 years.

Treatment:

A) Pharmacological

- Antidepressants
- Antianxiety drugs

B) Non pharmacological

- Psychotherapy.

II- Cyclothymia:

Clinical picture:

- Insidious onset, persistent or fluctuating course and social maladjustment.
- Mood swings and persistent instability of mood.
- Periods of hypomania and depression.
- Not secondary to organic or other psychiatric disorders.

Duration:

- At least 2 years.

Treatment

Pharmacological: Mood stabilizers.

Psychotherapy: Cognitive.

Psychotic Disorders

1- Schizophrenia

Definition:

A disorder characterized by disturbance of thinking, perception, behavior, emotion, and volition, leading to social and occupational dysfunction.

Epidemiology:

- 1% of the population.
- Equal sex incidence.
- Age of onset: 15-30 years.
- Class: more prevalent among lower socioeconomic status.
- Season: More common among winter births.

Etiology:

Biological:

Genetic predisposition: multifactorial polygenic mode of inheritance, i.e.: multiple genes plus environmental effects acting together.

Biochemical: dopamine excess or over activity in the mesolimbic cortical brain circuits together with dysfunction in serotonin in the frontocortical region.

Psychosocial:

Overprotective mother, submissive father, and excessive critical comments.

Predisposing factors:

Substance abuse, different psychological stressors.

Clinical picture:

A- Disorders of thinking:

Disorder of content of thinking e.g.

Delusions, which are false fixed beliefs that cannot be corrected by reason and are not related to social, educational backgrounds of the patients.

Common types of schizophrenic delusions:

i. ***Persecutory delusions*.**
ii. ***Grandiosity delusions.***
iii. ***Delusions of reference:*** patient is convinced that people's talk is directed specifically towards him/her.
iv. ***Delusions of influence:*** patient feels that he/she is controlled by outside forces or he/she can control events or people through special abilities he/she has.
v. ***Delusion of control*** *(being controlled by external force)*
vi. ***Delusions of jealousy and infidelity****.*

Disorder of stream of thinking: thought block (sudden stoppage of the train of thinking).

Disorder of control of thinking:

Thought reading: patients believe that they can read the thoughts of others or that others can read their thoughts.

Thought withdrawal: patients believe that others can take their thoughts out of their mind.

Thought insertion*:* patients believe that others can insert foreign thoughts in their minds against their will.

Thought broadcasting: patients believe that their thoughts are published through different means of media.

Disorders of form of thinking*:* These include incoherence, loose association, offpointing, tangentiality, incomprehensible speech, illogical thinking, and difficulty in dealing with abstraction.

B- Disorders of emotions:

The schizophrenic patient may display any of the following abnormal emotions:

Blunted or flat affect: the patient expresses very little emotions. He/she appears to be cold and flat.

Inappropriate or incongruent affect: the experienced affect is inconsistent and contrary to the situation. The patient appears very odd.

Marked transient changes in emotions: *(Depression, euphoria, anger or excitement, suspicious or hostile affect,)*.

C- Disorders of perception:

Hallucinations: sensory perception without a stimulus. *Auditory* hallucinations in the form of voices commenting, ordering, abusive, and threatening. *Visual, olfactory, and tactile* hallucinations are rare.

***Illusions*:** misinterpretation of real stimuli.

D- Disorders of behavior:

These include: withdrawal, self-negligence, bizarre behavior, violence, excitement, suicidal acts, homocidal acts.

E- Motor symptoms: (catatonic symptoms)

Posturing: maintaining strange position for a long period.

Negativism: resistance to all physical attempts to move patient.

Rigidity: patient is physically rigid.

Catatonic stupor: no response to people or environment,

Catatonic excitement: extreme and wild excitement that may be life threatening to the patient or to others due to exhaustion.

Waxy flexibility: the patient's adopted posture could be easily changed to a new one as flexing the wrist or neck. The patient maintains the new posture.

F- Disorders of volition:

Lack of spontaneity, lack of drive, lack of ambition, hesitancy (the man stops working and the student stops studying).

G- Cognitive symptoms:

Impaired concentration, attention and working memory.

H- Impaired social and occupational functioning.

Table (7): Summary of clinical features of schizophrenia

Positive symptoms	Negative symptoms
• Delusions. • Hallucinations. • Disorganized thinking and speech (formal thought disorder). • Incongruity of affect.	• Apathy. • Lack of drive and initiative, diminished volition. • Social withdrawal. • Deterioration of social behavior. • Poverty of thought. • Blunting of affect.

Table (8): Subtypes of schizophrenia

Paranoid	Hebephrenic
• Later age of onset • Delusions (well systematized persecutory, jealousy). • Auditory hallucinations • Mood and form of thought are mildly affected • No marked deterioration of personality.	• Earlier age of onset (adolescents and young adults) • Bizarre behavior (silly and childish) • Disorder of thinking, perception, volition and emotions (commonest symptoms are hallucinations and unsystematized or bizarre delusions) • Marked deterioration of personality and function

Catatonic	Simple
• Posturing, negativism, catatonic stupor or excitement, automatic obedience and waxy flexibility	• Mainly disturbance of volition and emotion (flat affect). • Social withdrawal • No delusions or hallucinations

Undifferentiated	Residual
• Mixture of symptoms from different subtypes	• Chronic residual symptoms, which persist after improvement of any of the previous subtypes.

Differential diagnosis:

1- Exclude systemic disease affecting the brain:

- e.g. Hepatic encephalopathy, systemic lupus, and Cushing disease.
- (Accurate history taking, physical examination and laboratory work-up is diagnostic.).

2-Exclude local disease of the brain:

- Tumors (frontal lobe and temporal lobe).
- Vascular insult (hemorrhage and infarction).
- Inflammation (encephalitis, tuberculosis).
- Degenerative (Alzheimer dementia, Parkinson's).
  (Accurate neurological, laboratory and radiological work-up is diagnostic).

3-Exclude drug- induced psychosis:

- Substance abuse (amphetamine, cocaine, cannabis, alcohol, Phencyclidine (PCP) and hallucinogens).
  (Urine toxicological screening is diagnostic.)
- Therapeutic drugs (steroids, cytotoxic drugs, anticholinergic agents and digitalis toxicity).

4-Exclude other psychiatric disorders:

- Mood disorder (depression or mania) with psychotic features.
- Postpartum psychosis.

Prognosis:

- 25% of schizophrenics recover without a subsequent relapse.
- 50% recover but relapse in the future.
- 25% fail to recover at all.
- 10% die by suicide.

Good prognostic factors:

- Acute onset
- Prominent affective symptoms
- Short duration (few months)
- Being married
- Negative family history
- Positive precipitating factor
- Older age of onset
- Good pre-morbid personality
- Good work record and social relations
- No past psychiatric history

Management:

A- Place of therapy:

Hospitalization:

When the patient is dangerous to self or others

e.g.

- Excitement.
- Catatonic symptoms.
- Homicidal.
- Suicidal.
- Refusal of food.
- Refusal of drug intake.

B- Pharmacological therapy (antipsychotics):

	Conventional antipsychotics	Atypical antipsychotics
Oral	**Chlorpromazine** (Neurazine) 100mg/tab (600-1200 mg/day) **Haloperidol** (Safinace) 5mg tab 15-30 mg **Trifluperazine** (Stelazine) 5mg tablet, 15-30 mg/day **Pimozide** (Orap) 4mg tab, 1-2 tab/day **Sulpride** (Dogmatil forte) 200 mg tab, 1-3 tab/day	**Risperidone** (Risperdal)2-4mg tab: 6-8mg/day **Clozapine** (Leponex) 100 mg tab, 300-600 mg/day. ***(for resistant cases only)*** **Olanzapine** (Zyprexa) 10 mg tab, 10-20 mg/day **Quetiapen** (Seroquel) 200 mg tab,200-600 mg/day **Aripiprazol** (Abilify) 10mg tab,10-30 mg/day
Long acting depot injection	**Fluphenazine decanoate** (*Modecate*) 25 mg amp/2 week **Haloperidol** (*Haldol decanous*) 50 amp mg /4 week **Zuclopenthixol decanoate** (*Clopixol*) 200 amp mg/ 3 weeks For long term prophylaxis and to improve compliance	**Risperidone** consta 25mg amp one amp/2wks

N.B. We have to add anticholinergic drugs*: e.g. Benzotropine(Cogentol) 2 mg tab twice daily or Biperdin (Akineton) 2 mg twice daily to prevent the extrapyramidal side effects of anti-psychotic drugs.*

C- Electro-convulsive therapy (ECT):

1. 6-12 sessions.
2. Indicated in catatonic schizophrenia.
3. Paranoid schizophrenia.
4. Acute excitement.
5. Homicidal thoughts or acts.
6. Suicidal thoughts or acts.
7. Refusal of food and medication.
8. Severe depressive symptoms accompanying schizophrenia.

D- Psychosocial therapy:

1. ***Family therapy and education:*** family counseling should be directed at reducing their expressed emotions. Patient may sometimes need to be separated from family.
2. ***Rehabilitation of the patient:*** using day hospitals, halfway houses or sheltered workshops.
3. ***Supportive psychotherapy***
4. ***Occupational and vocational therapy****, with the help of the social worker.*

2- Acute Psychotic Disorder

Definition:

Symptoms are identical with those of schizophrenia, but last for one to 6 months or less, and usually follow an obvious stress in the patient's life.

Diagnosis, signs and symptoms:

Resembles that of schizophrenia but with acute onset, intense emotions and perplexity.

Etiology:

Stressful life events are usually present and precede the onset of the disorder.

Differential diagnosis:

Should be differentiated from drug-induced psychosis, and other organic causes of psychosis.

Course and prognosis:

Usually runs a short remitting course, and prognosis is rather good.

Treatment:

The same rules of the treatment of schizophrenia are followed. Duration of treatment is one year or less.

3- Schizoaffective Disorder

Patients with schizoaffective disorder have psychotic episodes that resemble schizophrenia but with prominent mood disturbances.

Epidemiology:

- Lifetime prevalence is estimated at 0.5% to 0.8%).
- Age of onset is similar to schizophrenia (late teens to early, 20s).

Etiology:

The etiology of schizoaffective disorder is unknown. It may be a variant of schizophrenia, or a variant of a mood disorder.

Clinical manifestations:

Patients with schizoaffective disorder have the typical symptoms of schizophrenia and coincidentally a major mood disturbance, such is a manic or depressive episode.

There are two subtypes of schizoaffective disorder which are determined by the nature of the mood disturbance episodes.

- Schizo-depression.
- Schizo-mania.

Differential diagnosis:

a) Mood disorders with psychotic features are different from schizoaffective disorder by the prominent mood symptom.
b) Schizophrenia is differentiated from schizoaffective disorder by the absence of a prominent mood symptom in the course of the illness.

Management:

Patients are treated with medications that target the psychosis and the mood disorder. Typically, these patients require the combination of an antipsychotic medication and a mood stabilizer.

An antidepressant or electroconvulsive therapy may be needed for schizodepression.

Prognosis:

Is better than for schizophrenia and worse than for bipolar disorder or major depression.

4- Delusional Disorder

Delusional disorder is characterized by non bizarre delusions without other psychotic symptoms.

Epidemiology:

This disorder is rare, with a prevalence of <0.05%, onset is in middle to late life; it affects women more often than men. Its course is chronic and unremitting.

Clinical manifestation:

This disorder is characterized by well-systematized non bizarre delusions about things that could happen in real life such as:

- Being followed.
- Poisoned.
- Infected.
- Loved at a distance.
- Having a disease.
- Being deceived by one's spouse or significant other.

The delusions must be present for at least one month.
The patient's social adjustment may be normal.

Treatment: Antipsychotic drugs.

Organic Mental Disorders

Definition

This is a group of mental disorders that are characterized by significant impairment in cognitive functions such as memory, judgment, language and attention. They include the following:

- ***Acute organic mental disorder*** *(delirium)*.
- ***Chronic organic mental disorder*** *(dementia)*.

1- Delirium

Definition:

Transient, fluctuant reversible global impairment of cognitive and mental functions associated with clouded or impaired level of consciousness.

Onset and course:

Acute onset, transient, fluctuant, regressive course of short duration (few hours to days).

Clinical picture:

Consciousness

- Clouded or altered level of consciousness which worsen at night.

Cognitive functions

- Impaired attention.
- Impaired orientation to place, persons, and time.
- Disturbed thinking.
- Memory impairment especially for immediate and recent events.
- Difficult recall.

Perception

- Global disturbance.
- Illusion and hallucinations (mainly visual, and auditory).

Psychomotor symptoms

- Agitation, restlessness, hyperactivity.

Sleep

- Insomnia, nightmares.
- Reversed sleep – wake cycles.

Emotions

- Fear, depression, anxiety, irritability, perplexity, euphoria, apathy.

Causes of delirium:

A- Outside the brain:

Metabolic:

- Uremia,
- Liver cell failure,
- Hypoglycemia,
- Hyperglycemia (diabetic pre-coma).

Vitamin deficiency:

- Thiamine (Beriberi, Wernicke's encephalopathy).
- Niacin deficiency (pellagra).
- B12 deficiency (pernicious anemia).

Endocrinal:

- Hyper / hypo thyrodism,
- Addison,
- Cushing.
- Simmond’s disease.

Infections:

- Severe pneumonia, TB, typhoid, septicemia, etc

Hypoxia:

- Due to chest diseases,
- CO poisoning,
- Drug induced.

Toxic reaction to drugs:

- Chemotherapy, hormone, hypotensives, antihistaminics, anticholinergics, neuroleptics, antidepressants, etc

Collagen, autoimmune diseases

B- CNS causes:

- Infections (encephalitis, meningitis).
- Vascular: Hemorrhage, Infarction.
- Epilepsy: Ictal and postictal.
- Space occupying lesions.
- Head trauma.

Investigations:

- Full blood picture, liver, and kidney function tests, thyroid function tests, electrolytes, HIV antibodies, CT, MRI.

Management:

1- Treatment of the cause

2- Symptomatic treatment:

Control hyperthermia, dehydration.
Control electrolyte imbalance.

3- Supportive Vitamins

4- Sedation: in cases of agitation.

Oral medication:

- Haloperidol tablet 5mg, daily dose 5-10mg.
- Benzodiazepines, better to use short acting drugs as Alprazolam (*Xanax*) 0.25 mg tablets, daily dose 0.5-1 mg.
- Sulpride capsules 50 mg, daily dose 50-200 mg.

Parentral medication:

Haloperidol 5 mg amp, 1 amp/4hours IM.

N.B. *Benzodiazepine is avoided in hepatic cell failure.*

2- Dementia

Definition:

Global Disturbance of multiple higher cortical functions, such as cognition, memory, personality, thinking, language, judgment, in clear consciousness.

Onset and course:

Insidious onset and chronic progressive course.

Clinical picture:

Consciousness:

- No clouding of consciousness.

Cognitive functions:

- Decline in storing new information.
- Amnesia for recent events.
- Aphasia (nominal).
- Impaired language.
- Impaired judgment, thinking (paranoid delusion).
- Disorientation to time, place and person.

Perception:

- Agnosia.
- Hallucinations.
- Illusions.

Psychomotor:

- Apraxia.
- Inability to dress or perform daily activities.

Sleep:

- Insomnia, inverted sleep rhythm.

Emotion:

- Depression, agitation, Instability.

Others:

- Incontinence, behavioural disturbance, personality changes.

Causes:

Degenerative:

- Alzheimer's dementia.
- Huntington's chorea.
- Parkinson's dementia.

Infections:

- Neurosyphilis.
- Jacob Crutzfeldt.
- HIV.

Metabolic and Endocrinal:

- Vitamin deficiency.
- Infections.
- Hypoxia.

Vascular:

- Multi-infarct dementia.
- Cerebral embolism.
- Cerebral stroke.

Trauma:

- Head trauma (boxers).

Space occupying lesion:

- Subdural haematoma, brain tumors.

Infections:

- Encephalitis.

Differential diagnosis:

Normal aging

Delirium*:* unlike dementia, symptoms are reversible and there is clouding of consciousness, usually of acute onset and short duration.

Amnestic syndrome (Korsakoff's syndrome): resulting mainly from alcohol abuse and characterized by severe deficit in short term memory and confabulation.

Depression: unlike those with dementia, who may try to deny cognitive decline, elderly patients with depression complain of memory loss and difficulty with concentration. However, assessment of cognitive functions reveals no defect.

Table (9): Features of delirium and dementia

	Delirium	Dementia
Onset	Acute, usually within hours or days	Gradual, usually at least 6 months
Diurnal variation	Yes, usually worse at night	May be worse at night
Duration	Days or weeks, usually less than 6 months	Months or years
Consciousness/Alertness	Drowsy or hypervigilant	Normal
Attention	Usually poor	Usually maintained
Orientation	Disorientated in time, often in place and person	Similar changes but later in course of illness
Instant recall	Impaired	Only impaired in late stages
Memory	Impaired	Impaired
Thinking	Increased, reduced or muddled.	Reduced
Delusions	Early	Late
Illusion/Hallucinations	Common, usually visual	Only occur in late stages

Investigations:

Full blood picture, liver, and kidney function tests, thyroid function tests, electrolytes, HIV antibodies, CT, MRI.

Management:

Should be treated as early as possible to prevent permanent and progressive cognitive impairment.

Symptomatic treatment:

- For behavioural disturbances: (small dose of neuroleptics) e.g. Haloperidol (Safinace) tablets 5 mg daily, or Risperidone 1mg/day.,or Olanzapine (Zyprexa) 10mg daily, or Quetiapen (Seroquel) 100 mg daily.
- For mood symptom*:* Antidepressants(SSRI).

For early cognitive impairment:

- Choline esterase inhibitors:
  - Rivastigmine (Exelon) 1.5 mg tab, 1-3 tab/day.
  - Donepezil (Aricept) 5mgtab, 1-2 tab/day.
  - Memantin (Ebixa) 10mg tab, 1-2 tab/day.

For sleep disorder: Sleep promoting agents as benzodiazepines e.g. Xanax 0.25 mg tab at bed time, or anti-histaminics.

Substance Use Disorders

Introduction:

Substance use disorders are common disorder which have an impact on the society. Medical illnesses and psychiatric disorders are frequently complicated or associated with these disorders.

Criteria:

1. ***Intense desire urge and compulsion:*** to take the substance on a continuous or periodic basis.
2. ***Physical and/or psychological dependence:***
   Physical dependence: requirement for regular supply of drug to experience the psychiatric effects or avoid the discomfort of its abstain. Sudden stoppage produces withdrawal syndrome.
   Psychological dependence: *(addiction):* compulsion to take substance for pleasure and release of inner tension.
3. ***Tolerance:*** It is the need to increase the dose to reach the same effect or to prevent withdrawal syndrome.
4. ***Withdrawal:*** stopping the drug causes withdrawal symptoms.
5. ***Abuse:*** maladaptive pattern of substance use in physically hazardous situations, with recurrent legal problems and despite social and interpersonal problems.

Signs of dependence:

1. Continued used despite harm.
2. Difficulty controlling the use.
3. Development of tolerance.
4. Appearance of signs of withdrawal.

Epidemiology:

1. Most common in age group from 15 to 30 years.
2. More common among males.

Symptomatology:

Main presentations:

1. Mood changes (elevation, depression, anxiety).
2. Sleep and sexual problems.
3. Physical complications of the substance or from contaminated needles.
4. Accidents or injuries.
5. Legal and social problems (family, work and financial problems).
6. Unexplained change in behavior, appearance or functioning.

Classification of substances:

CNS depressants	CNS hallucinogens	CNS stimulants
Alcohol	Cannabis	Ephedrine
Opiates	LSD	Amphetamines
Benzodiazepines	PCP	Cocaine
Barbiturates		Ecstasy

Etiology:

I- Availability of drugs

II- Vulnerable personality:

1. People with personality disorder.
2. People from severely disorganised backgrounds, e.g. a history of childhood unhappiness.

III- Social pressures:

- For a young person to take drugs to achieve status, within the immediate peer group.

IV. Pharmacological mechanisms:

- Suggestion that tolerance and physical withdrawal effects can be explained by:
  1. An increased neurotransmitter receptor supersensitivity.
  2. Dysfunction of endorphin .

Table (10): Clinical features of substance abuse

Drug	Chronic use	Intoxication	Withdrawal
CNS Depressants: **1. Alcohol**	***Liver:*** hepatitis, cirrhosis, fatty liver, late stage liver failure ***GIT:*** oesophagitis, gastritis, portal hypertension, pancreatitis, peptic ulceration, and carcinoma. ***CVS:*** cardiac arrhythmia, cardiomyopathy, hypertension, coronary artery disease ***CNS****:* diffuse brain damage, Wernick-Korsakoff syndrome, cerebellar degeneration, peripheral neuropathy, epilepsy, amnesia, and fetal alcohol syndrome. ***Metabolic***: hypoglycemia, hypercortisolemia, ketoacidosis, hyperuricemia. ***Hematological****:* anemia, iron deficiency, thrombocytopenia. **Psychiatric complications:** Alcoholic hallucinations Depression and suicide Pathological jealousy Anxiety	Nystagmus Disturbed coordination Slurred Speech. Unsteady gait. Delirium Coma.	Sweating. Tremors. Seizures. Delirium Excitement.
2. Benzo-diazepines & Barbiturates	Slurred speech Cognitive impairment. Dysphoria. Behavioral disturbances. Impaired concentration	Disorientation Sedation. Nystagmus. Ataxia. Respiratory depression. CVS collapse. Coma	Anxiety Tremors. Agitation Insomnia. Irritability. Seizures. Delirium.
3. Opiates	Mood changes. Behavioral disturbance. Legal problems. Cognitive impairment. Apathy. Risk of AIDS, Hepatitis, and Phlebitis due using of contaminated needles. Constipation Malaise Loss of weight	Constricted pupils Colic Decreased temperature. Decreased pulse. Respiratory depression. CVS collapse. Coma.	Nausea. Vomiting. Sweating. Diarrhea Lacrimation. Sialorrhea Pains Shivering Abdominal cramps Agitation & restlessness

Table (10): Cont.

Drug	Chronic use	Intoxication	Withdrawal
CNS Hallucinogens *Cannabis* *LSD*	Depression. Lack of drive and motivation. Pulmonary complications Cognitive impairment. Psychosis (delusions, visual hallucinations) Panic attacks.	Red eye. Increased heart rate. Perceptual disturbance. Impaired coordination. Euphoria. Impaired consciousness. Sweating. Hypoglycemia.	Irritability Mood changes
CNS Stimulants: *Ephedrine* *Amphetamines* *Cocaine,* *Ecstasy*	Anxiety. Irritability. Loss of weight. Psychosis (visual, auditory and tactile hallucinations). Depression.	Sympathetic overactivity. CVS collapse.	Fatigue Depression

Management of drug dependence:

Prevention of substance abuse: (Media, Religion)

School level: young people need information about dangers of drug and alcohol use and how to minimize their harmful effects.

Governmental level: measures to reduce availability of drugs, advertise problems associated with drug use and proper provision and coordination of treatment facilities.

Medical level: general practitioners and psychiatrists should be able to undertake the basic management of drug related problems.

Hospitalization: (for treatment of somatic and psychiatric effects)**.**

Symptomatic treatment for abstinence (withdrawal) symptoms, e.g.:

- Analgesics for pain.
- Sedatives for sleep disturbance.
- Vitamines e.g. Vit. B.
- Antiepileptics for seizures.
- Antipsychotics for psychosis or excitement.
- Good nutrition, fluids.

4- Rehabilitation:

- Psychological treatment.
- Behavioral cognitive therapy and relapse prevention strategies.
- Aversion therapy e.g. alcoholism (Antabuse), heroin (Naltrexone).

After care:

- Occupational therapy.
- Religious group.
- Support group.

Tobacco Smoking Cessation

Health impact of tobacco:

Tobacco smoking is associated with an increased overall morbidity and mortality. This was recognized early in the era of industrialized cigarette production and mass use. Today knowledge of the deleterious health consequences of smoking is widely recognized, but smoking remains the number one cause of preventable death in the whole world.

- Among smokers age 35 to 69 smoking accounts for a three fold increase in the death rate, and approximately half of all regular smokers that begin smoking during adolescence will be killed by tobacco **(WHO report).**
- Smokers have more acute and chronic illnesses than never smokers, more bed disability days, and miss more school and work days.
- Moreover, short term exposure to tobacco smoke also has a measurable effect on the heart in non-smokers. Just 30 minutes exposure is enough to reduce coronary blood flow.
- In the long term, the excess risk of lung cancer in life-long non-smokers who live with a smoker is 24 per cent with an increased risk of heart disease of around 30%.

Smoking in the developing world:

Tobacco consumption rates in the developing countries has been increasing and expected to increase more rapidly in the next years. Women in developing countries are a key potential market for the tobacco industry. Recent increases in female smoking within these areas have been reported (WHO, 1992).

As for **Egypt,** Egypt is highest country in tobacco consumption in the Middle East and North Africa

Number of smokers increased twice as fast as the population since 1970.

Nicotine addiction:

Often get short term focussing of attention, hunger suppression, elevated mood and relief of nicotine withdrawal symptoms

Addiction sustains the habit resulting in continued and frequent exposure to nicotine and tar.

How do people become addicted to smoking tobacco?

When cigarette smoke is inhaled:

- Nicotine is rapidly absorbed and reaches the brain.
- Has a stimulant and relaxant effect.
- Often get short term focussing of attention, hunger suppression, elevated mood and relief of nicotine withdrawal symptoms.
- Addiction sustains the habit resulting in continued and frequent exposure to nicotine and tar.

The effects of nicotine:

- Nicotine binds to acetylcholine receptors at nerve terminals and cell bodies.
- On binding it initially excites then inhibits firing in the nerve cell releasing dopamine.
- Chronic nicotine exposure results in an increase in the number of acetylcholine receptors in parts of the brain.

The effects of nicotine on the brain:

- Acutely increasing activity in the central reward pathway (the mesolimbic dopamine pathway).
- Chronically reducing brain serotonin and dopamine levels.

The stimulant effects of nicotine:

It increases the activity in the sympathetic nervous system:

- Increasing heart rate.
- Stimulating adrenaline release.
- Decreasing circulation in the extremities.
- Increasing tremor.
- Altering glucose regulation.

The psychological effects of nicotine

- There is no clear evidence that it reduces stress, only relief of withdrawal symptoms.
- It may increase vigilance.
- It generally increases feelings of agitation.
- It can induce light-headedness.
- It can induce nausea.

The key signs of addiction:

- Continued use despite knowledge of harmful effects.
- Craving during abstinence.
- Failure of attempts to stop.
- Withdrawal symptoms during abstinence.
- Compulsive use.
- Evidence of tolerance.

How to assess nicotine addiction:

- Time of first cigarette of the day.
- Smoking even when ill.
- Smoking more in the morning.
- Difficulty not smoking in non-smoking areas.
- Which cigarette would be hardest to give up.
- Number of cigarettes smoked.

Nicotine withdrawal symptoms:

Symptom	Duration	Prevalence
Irritability/aggression	< 4 weeks	50%
Depression	< 4 weeks	60%
Poor concentration	< 2 weeks	60%
Restlessness	< 4 weeks	60%
Increased appetite	> 10 weeks	70%
Night time		
Awakenings	< 1 week	25%
Urges to smoke	> 2 weeks	70%
Light-headedness	< 48 hours	10%

Benefits of stopping smoking

Time	Benefits
20 minutes	Blood Pressure and pulse return to normal. Circulation improves, especially to hands and feet.
8 hours	Blood oxygen levels increase to normal, and your chances of having a heart attack start to fall.
24 hours	Carbon monoxide leaves the body. The lungs start to clear out mucus and debris.
48 hours	Your body is now nicotine free. Your senses of taste and smell begin to improve.
72 hours	Breathing is easier.
2-12 weeks	Circulation improves throughout the body. Walking and exercise get easier.
3-9 months	Breathing problems, coughing, shortness of breath and wheezing improve. Lung efficiency increased by 5-10%.
5 years	Risk of having a heart attack falls to about half that of a smoker.
10 years	Risk of lung cancer falls to around half that of a smoker. Risk of heart attack falls to about the same as someone who has never smoked.

Smoking cessation programmes:

During the last few decades, attention has been drawn to smoking cessation services. Although some smokers can stop by themselves, yet other group of smokers may need professional help. Smoking cessation programmes may include psychotherapy, pharmacotherapy or both.

Psychotherapy:

There are many programmes for psychotherapeutic techniques in treating tobacco smoking. One of the most common and effective one is the WHO 5 A's technique.

WHO recommendations:
The 5'As

Ask	about smoking at every opportunity and update records
Advise	all smokers to stop in a personalised and appropriate manner
Assess	each smoker's motivation to stop
Assist	help the smoker to stop
Arrange	referral and /or follow up if possible

Pharmacotherapy:

1- Nicotine replacement therapy (NRT):

Mechanism of action:

The main mode of action of **NRT** is thought to be the stimulation of nicotinic receptors in the ventral tegmental area of the brain and the consequent release of dopamine in the nucleus accumbens. This and other peripheral actions of nicotine lead to a reduction in nicotine withdrawal symptoms in regular smokers who abstain from smoking.

- No one method of delivery more effective.
- NRT effective component of strategy if smoking >10 cigarettes a day.
- Long term relapse may occur but rate no greater in those who quit with NRT.
- Abstinence after 1 week strong predictor of 12 month abstinence (25% vs 2.7%).
- NRT replaces some of the nicotine that is normally provided by tobacco, and hence reduces the severity of withdrawal symptoms.
- NRT doubles the likelihood of a successful quit attempt in comparison to placebo, or when added to either brief or intensive support.
- There are a range of products available, although there appears to be little overall difference between them in effectiveness. Obviously, different products will suit different people.
- NRT effective component of strategy if smoking >10 cigarettes a day.

Contraindications	Cautions
Pregnancy*	Diabetes Mellitus
Lactation*	Hyperthyroidism
Under 18 yrs*	Peripheral Vascular Disease
Acute myocardial infarction	Hypertension
Unstable Angina	Stable Angina
Cardiac Arrhythmias	Congestive heart disease
Recent cerebrovascular accidents	Renal or hepatic Impairment
	Pheochromocytoma

2- Bupropion: (Zyban Tab.)

Mechanism of action:

- Oral, non-nicotine replacement.
- Appears to act on brain pathways responsible for nicotine dependence and withdrawal to normalise neurotransmitter levels and associated neuron activity.
- Thought to modify dopamine levels in the mesolimbic system and alter noradrenergic activity.

Side effects:

- Dose related risk of seizure, so should be contraindicated in history of seizure.
- Most common: dry mouth, headache, and insomnia.
- Low potential for abuse.

3- Varenicline (Not available in Egypt)**:**

- The most recent pharmacotherapy used in tobacco cessation (released 2006-2007).
- Partial agonist for nicotinic acetylcholine receptors preventing nicotine of tobacco from binding to them.
- Side effects: headache, nausea, abdominal pain and insomnia.
- No large sample trials have been done yet.

Personality Disorders

Personality disorders are the abnormal manifestations in the form of patterns of persistent behavior that colour the whole or the main aspect of the personality, starting since early childhood.

The personality traits are:

a. Inflexible,
b. Maladaptive,
c. Causing significant impairment in social or occupational functioning,
d. Subjective stress, that they constitute personality disorder.

Three groups of personality disorders:

Group I: Odd or eccentric:

a. Paranoid.
b. Schizoid.
c. Schizotypal.

a) Paranoid personality disorder:
The essential features are:

- Hypersensitivity.
- Suspicion and mistrust of people.
- Restricted- emotions and coldness
- Inability to accept criticism.
- Hostility and aggression.

They always expect trick or harm from the others. They search in the environment for signs of threat or taking unneeded precautions most of the time. They like to be secretive and guarded; they avoid accepting blame even when they do mistakes. They always question the loyalty of others and for this reason they may have some pathological jealousy. They are concerned with hidden motives and special meanings often transient ideas of references occur, e.g. people saying vulgar things about them. They are usually argumentative and exaggerative by making (mountains out of molehills).

b) Schizoid personality disorder:
They are characterized by:

- Emotional coldness and absence of warm tender feelings for others. Indifference to praise or criticism or to the feelings of others.
- Tendency to isolation, they do not like to mix with others and they have no more than one or two friends including family members.
- They are often unable to express aggression or hostility,
- They may seem vague about their goals, indecisiveness in their actions
- Self-observed, absent-minded, detached from their environment,
- Excessive day dreaming because of lack of social skills. Males of this disorder usually are incapable of mixing and rarely marry, females may passively get married.

c) Schizotypal personality disorder:

Here there are various eccentricities and abnormalities of thought, perception and speech.

- Magical thinking e.g. superstitious, clairvoyance, telepathy, sixth sense, bizarre fantasies.
- Ideas of references that people are talking and referring at them.
- Social isolation e.g. no close friends, contacts limited to essential everyday tasks.
- Recurrent illusions sensing the presence of a force or a person not actually present.
- Odd speech, but without loosening of association e.g. the speech is vague, circumstantial, metaphorical, pseudo-philosophical, and does not reach definite end.
- Inadequate feelings in face to face interaction e.g. cold, and aloof.
- Suspiciousness and paranoid ideation e.g. people are against me.
- High social anxiety or hypersensitivity to real or imagined criticism.

This personality may have attacks of anxiety, depression, and a sometimes-transient psychotic symptom that is why some scientists believe it should be part of the psychotic spectrum and not a personality disorder.

Group II: Dramatic, emotional-or erratic:

a. Histrionic.
b. Narcissistic.
c. Antisocial.
d. Borderline.

Histrionic personality disorder

It is estimated to be a frequent disorder among females ranging between 10-20% of the population; it is characterized by the following:

- Emotional immaturity with continuous changeability in their feelings, inability to maintain their emotions for long period. They are like effervescent tablets get highly excited in a short time but soon calm down and become completely normal.
- Suggestibility: They behave according to their emotions and not logic, and so they may react to any stimulus or believe anything said without investigation and details. In medicine, this personality is more liable to complain of the same symptoms as they read or hear about from friends or journals or in the hospitals.
- Selfishness: They like to be the centre of attention, and attraction they will exaggerate in the way they talk and walk, they dramatize events, and they use heavy cosmetics, perfumes and bright colors in their dresses.
- Sexualization of non-sexual objects. Although they appear very sensual and sexual, attracting and provoking men and may give a sexual interpretation of any word or action of the other partner, yet a great percentage of them are sexually frigid and are never able to make a happy and successful life. This is probably one of the reason for their multiple affairs, marriages or divorces.
- They have characteristic disturbance in inter-personal relationship. They may be perceived by others as callous and lacking genuineness even if superficially warm and charming. They are egocentric and inconsiderate of others. They are

demanding, dependent, helpless, constantly seeking reassurance, prone to manipulative suicidal attempts, gestures or trends.

- Dissociation: Under stress and in order to escape from certain situations they may have dissociation of their personality and become a different type of personality, e.g. double personality, amnesia, fugue, or they may change their anxiety to physical symptoms, e.g. paralysis, blindness, deafness, etc.

Narcissistic personality

It may be similar to the hysterical personality with some differences:

- Grandiosity: Sense of self-importance or uniqueness e.g. exaggeration of achievement and talent. They always focus on their special problems as if there is nothing else in the world.
- Preoccupation*:* with day dreams and fantasies of unlimited success, power, intelligence, beauty or ideal love.
- Exhibitionism*:* The person requires constant attention, admiration and praise.
- Cold indifference or marked feelings of rage, inferiority, shame and humiliation, or impudence in a response to criticism.
- Disturbance of inter-personal relationship, they accept special favors without reciprocal responsibility, they take advantage of others and disregard others' rights and alternate between extremes in their relationship of over-idealization and devaluation, and they are unable to appreciate the stress of someone who is seriously ill.

Antisocial personality disorder

At least four of the following manifestations may occur:

- Inability to sustain consistent work behavior e.g. too frequent job change, significant unemployment, serious absence from work, and walking off several jobs without finding another one.
- Lack of ability to function as responsible parent as evidence by child malnutrition or illness resulting from minimal hygiene standards, child's dependence on neighbors for food or shelter,

taking money required for household necessities for his own pleasure.

- Failure to accept social standards and the law of the society, e.g. repeated thefts, prostitutions, selling drugs, multiple arrests and imprisonment.
- Inability to have a continuous attachment to the opposite partner as indicated by two or more divorces or separations.
- Irritability and aggressiveness as indicated by repeated physical fights or assaults.
- Failure to honor financial obligations.
- Failure to plan ahead or impulsivity e.g. traveling from place to place without arranging to find a job or clear goal.
- Repeated lying.
- Recklessness as indicated by driving while intoxicated or recurrent speeding.
- Tendencies to antisocial behavior by using substance as alcohol, opium, heroin or other drugs and sexual perversions.
- They never learn from experience, i.e. they make the same mistakes apologize, regret, and then go back again the following day repeating the same mistakes.

Before the age of 18 the patient may exhibit conduct beahviour in the form of escaping from school or suspended from school for behavior, delinquency, running away from home, persistent lying, repeated drunkenness or substance abuse, school grade below expectation inspite of their good I.Q., chronic violation of rules at home and/or at school and initiation of fights.

Borderline personality disorder:

- Impulsivity or unpredictability with self-damaging behavior e.g. sex, gambling, substance abuse, shoplifting, over-eating, and physically self-damaging acts.
- Unstable and intensive interpersonal relationships e.g. marked shifts of attitude, idealization, devaluation using others for one's own.
- Inappropriate and intense anger or lack of control of anger e.g. frequent display of violence.

- Identity disturbance manifested by uncertainty about several issues related to identity such as self-image, gender identity, long-term goals, current choice, friendship pattern, values and loyalties.
- Emotion unstable, marked shifts from normal mood to depression, irritability, anxiety for few hours and rarely more than few days, with return to normal mood.
- Intolerance of being alone.
- Physically self-damaging acts e.g. suicidal gestures, self-mutilation, recurrent accidents or physical fights.
- Chronic feelings of intense boredom.

Group III: Anxious or fearful

a. Avoidant
b. Dependent
c. Compulsive
d. Passive aggressive

Avoidant personality disorder:

- Characterized by hypersensitivity to the possible rejection, humiliation or shame and unwillingness to enter into relationships unless given unusually strong guarantees of critical exceptions.
- Social withdrawal inspite of a desire for love and acceptance and lastly low self-esteem.
- They are very concerned about how others assess them and they withdraw from chances for developing close relationship because of fear that they may be humiliated.
- They may have one or two close friends but this is conditioned that they should be approved for any behavior.
- They are different from the schizoid personality who are socially isolated but have no desire for social relations but those they need and want, and they are looking for affection and acceptance.

Dependent personality disorder:

- The essential feature is that the individual passively allows other to assume responsibility for major areas of his or her life, because of a lack of self confidence and inability to function.

- He becomes a follower to others on whom he is dependent in order to avoid any possibility of having any responsibility.
- They are indecisive and are unwilling to make demands on people they depend on for fear of disturbing their relationships, e.g. a wife with this disorder may tolerate a physically abusive husband for fear that he might leave her.

Compulsive personality disorder:
This is characterized by:

- Restricted ability to express warm and tender emotions. The individual is very conventional, serious and formal.
- Perfectionism and preoccupation with trivial details, rules, orders, organization schedules, and lists.
- Instance that other should subunit to his or her way of doing things e.g. a husband stubbornly mists up his wife's complete obedience for him regardless of her plans.
- Excessive devotion to work and particularly to exclusion of pleasure and value of inter-personal relationship.
- Indecisiveness: decision-making is either avoided or postponed perhaps for fear of making a mistake. They have a tendency to repeat things to be sure of their actions e.g. read a letter several times., check the lights, doors and gas before they sleep follow a certain ritual in the morning, i.e. tea, news papers, bath, breakfast, a routine which they cannot change. If they come to the physician they will have their symptoms and treatment tabulated in a file.

Passive aggressive personality disorder:

There is resistance to demands for adequate performance in both occupational and social functioning. The resistance is expressed rather than directly, through stubbornness instead of inefficiency because of the passive resistant both socially and occupationally because of the passive resistant behavior. They are dependent and lack self-confidence.

Affective or cyclothymic personality:

They have cyclic swings of mood alternating between being outgoing, friendly, warm, undertaking tasks with enthusiasm and looked at as fantastic and charming, though unpredictable persons. This would alternate with sadness, lack of interest, alternating with period of happiness and activity. It is subdivided into a depressive personality in which he is in a continuous mood of sadness, despair, lack -of energy, lack of interest and multiple complaints or a hypomanic personality in which he is always cheerful, happy, charming, talkative. And the alternation between the two personalities is called cyclothymic personality. All these type of affective personality are more vulnerable to depressive disorders.

Differential diagnosis:

I. **Exclude any organic disorders -** e.g. focal or diffuse organic brain disease, epilepsy, and alcohol or drug abuse.
II. **Exclude any functional psychiatric illness:** - e.g., schizophrenia, affective disorders, and neurotic disorders.

Management:

1. Physical:

i. ***Short-term:*** anxiolytic drugs or neuroleptics may be given for short periods at times of unusual stress.
ii. ***Long-term:*** neuroleptics may be helpful in paranoid and schizotypal personality disorders.

2. Social: supervision and support are often beneficial.

3. Psychological:

i. ***Psychotherapy:*** group psychotherapy is more helpful than individual psychotherapy.
ii. ***Cognitive behavior therapy:***
- The treatment plan aims to bring about limited changes in the patient's circumstances, so that he has less contact with situations that provoke his difficulties.

N.B. Admission to hospital should be avoided whenever possible, but may be necessary for short periods of crisis.

Personality and Response to Illness

Five areas of such differences are observed:

1. Symptom perception.
2. Symptom action.
3. Symptom formation.
4. Response to illness.
5. Response to treatment.

1- Symptom perception:

This refers to the way in which people perceive symptoms occurring in their own bodies. The variation is situationally and culturally determined. For example, it was, reported that:

- Introverts were found to have a lower pain threshold, in that they tend to feel pain sooner than extroverts.
- Situational factors may also alter pain threshold by affecting anxiety levels. Someone under pressure at home or at work might well be made more anxious and this could amplify the perception of a symptom.

2- Symptom action:

This describes what action people take in response to the perception of a symptom and in particular whether they seek medical help or not.

Anxiety level is a factor correlates with high attendance to medical services, the higher the anxiety the more likely the patient is to seek medical help.

Locus of control can influence the type of action, which follows the perception of symptoms. Locus of control refers to the extent to which an individual feels that the things, which happen to him are determined by internal factors under his own control, or external factors not affected by his behavior. Some research have shown that patients who have high scores on locus of control questionnaire, i.e. with a strong belief in external determinants, are more likely to seek medical and psychiatric help, since they feel that they are less able to bring about any effective change in themselves and hence rely more on external agents to do so.

3- Symptom formation:

This describes the possibility that different types of people might be prone to different types of disorders.

Type A and Type B personality

- The type "A" behavior pattern is characterized by enhanced aggressiveness, and competitive drive, a preoccupation with dead lines, and a chronic impatience sense of time urgency. Also they were able to provide clear evidence that type A behavior has an association with coronary heart disease.
- The type "B" behavior pattern is characterised by being more relaxed, less hurried found of sedentary life.

4- Response to illness:

Some people appear to over-react, and others appear to under-react, or deny the seriousness or inconvenience of an illness. Others become hostile and aggressive while some people may actually welcome and exaggerate their illness because it provides an opportunity to express their feelings of dependence on others.

5- Response to Treatment:

Placebo effect:

In general, people who show large placebo responses are found to be fairly suggestible and dependent types, whereas people with more suspicious natures tend not to respond to placebo tablets. The personality of the doctor or person administering the medication also appears to modify the extent of a placebo response.

Response to certain drug:

It has also been claimed that there are personality differences in response to drugs affecting the CNS. In anxious patients, greater tolerance of sedatives is found amongst the more introverted, whereas the extraverts are found to be much more sensitive to these drugs.

Doctor-patient relationship:

It has been shown that the personality factors may play a role in determining the effectiveness of communication between doctor and patient.

Sleep Disorders

Definition:

Sleep disorders are a group of syndromes characterized by:

- Disturbance in the amount, quality, or timing of sleep, or in behaviors or physiological conditions associated with sleep. The average length of night time sleep varies among people. Most adults sleep between seven and nine hours a night.

Sleep disorders are classified according to their causes:

- Primary sleep disorders e.g. (dyssomnias and parasomnias)
- Secondary sleep disorders caused by other mental disorders, prescribed medications, substance abuse, or medical conditions.

1- Dyssomnias

Definition:

Dyssomnias are primary sleep disorders, in which the patient suffers from changes in the amount, restfulness, and timing of sleep.

a- Primary insomnia:

Definition: difficulty in falling asleep or remaining asleep that lasts for at least one month. It is estimated that 35% of adults in the United States experience insomnia during any given year. Primary insomnia usually beings during young adulthood or middle age.

b- Hypersomnia:

Definition: excessive sleepiness during normal waking hours. The patient has either lengthy episodes of daytime sleep or episodes of daytime sleep on a daily basis even though he or she is sleeping normally at night. The number of people with primary hypersomnia is unknown, although 5-10% of patients in sleep disorder clinics have the disorder. Primary hypersomnia usually affects young adults between the age of 15 and 30.

C- Narcolepsy:

It is a dyssomnia characterized by recurrent “sleep attacks” (abrupt loss of consciousness) lasting for 10–20 minutes. The patient feels refreshed by the sleep, but typically feels sleepy again several hours later.

Narcolepsy may be associate: cataplexy (sudden loss of muscle tone and stability), hallucinations and sleep paralysis.

D- Breathing- related sleep disorders:

Are syndromes in which the patient’s sleep is interrupted by problems with his or her breathing.

There are three types of breathing-related sleep disorders:

Obstructive sleep apnea syndrome: is the most common form, marked by episodes of blockage in the upper airway during sleep. It is found primarily in obese people. Patients with this disorder typically alternate between periods of snoring or gasping (when their airway is partly open) and periods of silence (when their airway is blocked). Very loud snoring is characteristic of this disorder.

Central sleep apnea syndrome: is primarily found in elderly patients with heart or neurological conditions that affect their ability to breathe properly.

Central alveolar hyperventilation syndrome: is found most often in extremely obese people. The patient’s airway is not blocked, but his or her blood oxygen level is too low.

E- Circadian rhythm sleep disorders:

These are dyssomnias resulting from a discrepancy between the person’s daily sleep/wake patterns and the demands of social activities, shift work, or travel.

There are three circadian rhythm sleep disorders: delayed sleep phase (going to bed and waking later than most people); jet lag (traveling to a new time zone); and shift work.

2- Parasomnias

Definition:

Parasomnias are primary sleep disorders, in which the patient's behavior is affected by specific sleep stages or transitions between sleeping and waking.

A- Nightmare disorder:

It is a parasomnia, in which the patient is repeatedly awakened by frightening dreams.

Approximately 10-50 % of children between three and five years old have nightmares.

Nightmares occur during REM sleep, usually in the second half of the night.

B- Sleep terror disorder:

In this parasomnia, the patient awakens screaming or crying. Unlike nightmares, sleep terrors typically occur in stage 3 or stage 4 NREM sleep, during the first third of the night. The patient may be confused or disoriented for several minutes and may not remember the episode the next morning.

Sleep terror disorder is most common among children 4-12 years old.

It affects about 3% of children and less than 1% of adults.

C- Sleepwalking disorder:

Sleepwalking or Somnambulism occurs when the patient is capable of complex movements during sleep, including walking. Sleepwalking occurs during stage 3 and stage 4 of NREM sleep during the first part of the night. In addition to walking around, patients with sleepwalking disorder have been reported to eat, use the bathroom, unlock doors, or talk to others.

It is estimated that 10% of children have at least one episode of sleepwalking. However, only 1-5% male meets the criteria for sleepwalking disorder.

The disorder is most common among children 8-12 years old.

3- Sleep Disorders Related to other Conditions

- ***Mental disorders:*** especially depression or anxiety disorders can cause sleep disturbances. Psychiatric disorders are the most common cause of chronic insomnia.
- ***Medical conditions:*** like Parkinson's disease, Huntington's disease, viral encephalitis, brain disease, and thyroid disease may cause sleep disorders.
- ***Substances such as drugs:*** alcohol and caffeine frequently produce disturbances in sleep patterns.
- ***Emotional stress and hormone imbalances:*** can also cause sleep problems.
- ***Prescription medications:*** such as antihistamines, corticosteroids, asthma medicines, and drugs that affect the central nervous system can disturb sleep patterns.

Diagnosis:

Diagnosis of sleep disorders usually requires

- **Psychological history**
- **Medical history**
- **Physical examinations** do not usually reveal any signs. The doctor may also talk to other family members in order to obtain information about the patient's symptoms.
- **Psychological tests or inventories** are used because insomnia is frequently associated with mood or affective disorders.
- **Sleep diary** patient may be asked to keep a sleep diary for one to two weeks to evaluate the sleep disturbance. Medications taken, the length of time spent in bed, and the quality of sleep are recorded.
- **Polysomnography** records physiological functions, which can be used to help diagnose sleep disorders as well as conduct sleep research.

Treatment:

I- General recommendations (sleep hygiene):

- Waiting until one feels sleepy before going to bed.
- Not using the bedroom for work, reading, or watching television.
- Waking up at the same time every morning.
- Avoiding smoking and drinking caffeinated liquids.
- Limiting fluid intake after dinner and avoiding alcohol.
- Avoiding high-sugar or high-calorie snacks at bedtime.
- Avoiding highly stimulating activities before bed, such as watching a frightening movie, playing competitive computer games, etc.
- Avoiding tossing and turning in bed. Instead, the patient should get up and listen to relaxing music or read.
- Avoid hypnotic drugs unless indicated

II- Pharmacological treatment:

1- Dyssomnias:

a. Insomnia:

- ***Benzodiazepines:*** For short-term management e.g., acute stress Alprazolom (*Xanax or Zolam*), Diazepam (*Valium*).
- ***Benzodiazepine agonists:*** e.g. Flurazepam, Temazepam. (They don't cause cognitive impairment).
- ***Non-Benzodiazepines:*** e.g. Zolpidem, Zopiclone, (No tolerance or hangover).
- ***Others:*** Antihistamines, low dose neuroleptics, anti depressants e.g. Trazodone (*Trittico*).
- ***Over the counter drugs:*** Herbal e.g. cava, paciflora, Valerian herb, Vitamine B 12

b. Narcolepsy and Hypersomnia:

- ***CNS stimulants:*** e.g. Dextroamphetamine and Methyl Phenidate.
- ***Tricyclic antidepressants:*** especially Clomipramine in Cataplexy.

c. Circadian rhythm sleep disorders: Melatonin tablets

d. Nocturnal myoclonus and restless leg syndrome:

- ***Benzodiazepines***
- ***L.Dopa***
- ***Antiepileptics*** e.g. Carbamazepine (*Tegretol*), Lamotrigine (*Lamictal*).

2- Parasomnias:

- ***Non REM sleep parasomnias:*** *(e.g. night terrors)*
  - Benzodiazepines: (Reduce stage 3-4), e.g. Diazepam (Valium) low dose.
- ***REM sleep parasomnias:*** *(e.g. nightmares and REM sleep behavior disorder).*
  - Tricyclic antidepressants, especially Clomipramine, decrease REM sleep and increase slow wave sleep.

III- Non-Pharmacological treatment:

a. ***Establishing optimal sleep:*** hygiene.

b. ***Behavioral and cognitive therapy***

- Relaxation techniques: to reduce tension.
- Cognitive therapy: for intrusive thoughts and frustrations at bedtime.

c. ***3- Surgery: for sleep apnea***

d. ***Continuous positive airway pressure (CPAP)***

- CPAP given through a nasal mask is the standard treatment for obstructive sleep apnea. It acts as a pneumatic splint maintaining the patency of the upper airways during sleep.

e. Sleep hygiene.

IV- Treatment of the cause is very important

- Anxiety disorder.
- Mood disorders.
- Substance induced sleep disorders.

Sexual Disorders

Sex:

Sex refers to the sum of biological characteristics that define the spectrum of humans as females and males.

Sexual health:

Sexual health is the experience of the ongoing process of physical, psychological, and sociocultural well being related to sexuality. Sexual health is evidenced in the free and responsible expression of sexual capabilities that foster harmonious personal and social wellness, enriching individual and social life. It is not merely the absence of dysfunction, disease and/or infirmity.

Gender:

Gender is the sum of cultural values, attitudes, roles, practices, and characteristics attributed to the biological sex.

Physical gender:

This is the biological, physical and anatomical appearance of the human being, being either male (XY) or female (XX).

Gender identity:

Gender identity defines the degree, to which each person identifies his or herself as male, female, or some combination.

Gender role:

It is the behavior of the individual, whether male behavior or female behavior. It varies between different parts of the world as it is markedly influenced by society, religious beliefs, attitudes, customs and social norms.

Phases of sexual cycle:

- Sexual desire.
- Sexual arousal.
- Orgasm.
- Resolution.

Sexual Disorders:

1- Sexual cycle disorders

Types:

A) Lack of sexual desire

Hypoactive sexual desire disorder:

Have a persistent or recurrent deficiency in or absence of sexual fantasies and desire.

Causes:

- Major depression
- Schizophrenia.
- Drug induced.
- General medical condition (e.g. diabetes mellitus).
- For many persons, low sexual interest temporarily results from stressful situations such as overwork, lack of privacy, or lack of opportunity for sexual relationships.

Sexual aversion disorder:

Represents a persistent and recurrent aversion to and avoidance to genital contact with a sexual partner. The disorder is not due to obsessive-compulsive disorder, major depression, or another conditions. Many experts believe that persons with this disorder have been sexually victimized in the past and harbor unpleasant memories or beliefs about sexual intimacy.

B) Disorders of sexual arousal

The sexual arousal disorders include male erectile disorder (impotence) and female sexual arousal disorder.

Primary erectile dysfunction (impotence):

Occurs when a man has never been able to achieve an erection sufficient for vaginal insertion. With secondary impotence, the man has successfully achieved an erection sufficient for vaginal penetration at some time during the past, but is currently unable to do so.

Primary impotence is rare, but secondary impotence is reported to occur in up to one-quarter of all men. Among men treated for sexual disorders, more than 50% report this problem. *Erectile dysfunction* means failure to attain or maintain erection sufficient for vaginal penetration.

Female sexual arousal disorder:

Occurs in up to one-third of all married women and is defined as the partial or complete failure to attain or maintain the lubrication-swelling response characteristic of the excitement stage or the complete lack of sexual excitement and pleasure.

The disorder can be due to physical factors (e.g., dyspareunia) and is usually associated with anorgasmia.

C) Disorders of orgasm:

The orgasmic disorders include female orgasmic disorder (anorgasmia), male orgasmic disorder, and premature ejaculation.

Female orgasmic disorder:

It is manifested by the delay in or absence of orgasm following a normal sexual excitement stage. The clinician judges the woman's orgasmic capability to be less than expected for her age, sexual experience, and amount of sexual stimulation received.

Male orgasmic disorder:

Occurs when a man achieves ejaculation during intercourse only with great difficulty, if at all. Again, the clinician must take into account the man's age, sexual experience, and amount of sexual stimulation received.

Premature ejaculation:

It is a common disorder reported by more than one-quarter of married men and is the second most frequent complaint among men seeking help for a sexual disorder. The disorder is diagnosed when the man has persistent or recurrent ejaculation with minimal sexual stimulation before, on, or shortly after vaginal penetration and before the man wants to ejaculate. There is no corresponding disorder in women.

D) Sexual pain disorders

- ***Dyspareunia:*** painful intercourse in males or females.
- ***Vaginismus:*** in which involuntary muscle contractions sufficient to prevent penile insertion occur in the outer one-third of the vagina.

Clinical management of sexual dysfunctions:

1. The clinician must learn lo take a sexual history without, shame or embarrassment.
2. Patients will detect the clinician's anxiety, which will only serve to increase their own.
3. The clinician should not apologize for asking intimate questions. It is important to assess how couples behave sexually.
4. Most couples will be surprisingly forthcoming in describing their sex life.
5. Both members of the couple need to participate in the therapy.
6. The principles of dual sex therapy are relatively simple: to learn and emphasize education about sexual functioning, helping couples to communicate better, and correcting dysfunctional attitudes about sex that one or both partners may hold.
7. Therapy involves homework assignments, which assist the couple in learning to increase sensory awareness.
8. Male erectile disorders can now be treated pharmacologically, whether the disorder is primarily psychologically motivated or medically based.
    - *Medications include:* Sildenafil (Viagra).
    - *Other techniques:* vacuum pump devices and penile devices.

2- Gender Identity disorder (trans-sexualism)

Gender identity disorders are relatively rare and usually have their onset in childhood and adolescence.

Clinical picture:

- Strong desire to become a member of the opposite sex.
- Strong and persistent cross-gender identification and a sense of inappropriateness about their assigned gender.
- Persistent preoccupation with getting rid of their primary and secondary sex characteristics and acquiring the sex characteristics of the opposite gender.

N.B. It is important to rule out schizophrenia and other psychiatric disorders.

3- Paraphilias (Sexual Deviations):

Paraphilias are characterized by a disturbance in the object, or expression of sexual gratification.

Common paraphilias include:

- ***Exhibitionism:*** in which an individual exposes his or her genitals to unprepared strangers for the purpose of achieving sexual gratification.
- ***Fetishism:*** in which inanimate objects are the preferred or only means of achieving sexual excitement.
- ***Pedophilia*****:** in which repeated sexual activity with prepubertal children is the preferred or exclusive method of obtaining sexual release.
- ***Transvestic fetishism:*** in which a person experiences sexual excitement from dressing in the clothes of the opposite sex.
- ***Voyeurism*****:** in which observing the sexual activity of others is the preferred means of sexual arousal.
- ***Sexual sadism:*** inflicting pain on others.
- ***Sexual masochism:*** enjoying pain and humiliation.
- ***Frotteurism:*** rubbing against non-consenting persons.

Management:

1- Cognitive behavioural therapy.
2- Supportive psychotherapy.
3- Pharmacotherapy.

Eating Disorders

1- Anorexia Nervosa

Anorexia nervosa is characterized by:

- Willful and purposeful behavior directed towards losing weight.
- Preoccupation with body weight and food.
- Peculiar patterns of handling food.
- Intense fear of gaining weight.
- Disturbance of body image.
- Amenorrhea.

Clinical picture:

a. There is weight loss leading to a body weight at least 15% below the normal or expected weight for age and height.

b. The weight loss is self-induced by avoidance of "fattening" foods or taking purgatives or vigorous exercise.

c. There is self-perception of being too fat, with an intrusive fear of fatness, which leads to a self-imposed low weight threshold.

d. A widespread endocrine disorder involving the hypothalamic-pituitary-gonadal axis is manifest in women as amenorrhea and in men as a loss of sexual interest and potency.

Epidemiology

I. Age

Females

- Onset usually between ages 16-17 years.
- Onset rarely after the age of 30 years.

Males – onset usually about the age of 12 years.

II- Sex

More common in females.

The ratio of females to males is about 10:1.

III- Social class – more common in upper social classes.

IV- Prevalence rate – 1% of middle-class adolescent girls.

IV. Physical consequences:

1. Clinical features secondary to starvation and cachexia.
2. Consequences of vomiting and laxative abuse.
3. Hormonal abnormalities.

Differential diagnosis:

- ***Medical disorders:*** that cause weight loss e.g. panhypopituitrism, thyrotoxicossis, diabetes mellitus, cancer, mal absorption syndrome…etc.
- ***Psychiatric disorders:*** e.g. depressive disorder; in which there is actual loss of appetite, unlike anorexia nervosa where there is refusal only.

Treatment:

Hospitalization:
Medication: antihistamines, antidepressants and antipsychotics
Psychotherapy: family therapy, behavioral therapy and cognitive therapy.

2- Bulimia Nervosa

Characterized by episodes of uncontrollable overeating (binge eating or bulimia) followed by compensatory behaviors (vomiting, abuse of purgatives or vigorous exercises).

Clinical picture:

a. There are recurrent episodes of overeating (at least twice a week over a period of 3 months) in which large amounts of food are consumed in short periods of time.

b. There is persistent preoccupation with eating and a strong desire or a sense of compulsion to eat (craving).

c. The patient attempts to counteract the "fattening" effects of food by one or more of the following:
- Self-induced vomiting.
- Self-induced purging;
- Alternating periods of starvation**;**
- Use of drugs such as appetite suppressants, thyroid preparations, or diuretics.
- When bulimia occurs in diabetic patients, they may choose to neglect their insulin treatment.

d. There is self-perception of being too fat, with an intrusive dread of fatness (usually leading to underweight).

Treatment:

Psychotherapy: behavioral and cognitive therapy.

Pharmacotherapy: mostly antidepressant; the best is selective serotonin reuptake inhibitors.

Treatment of complications:

Medical complications of eating disorders:

1) Related to weight loss:

a) ***Cachexia and starvation:*** loss of fat, muscle mass, reduced thyroid metabolism (low T3 syndrome), cold intolerance, and difficulty maintaining core body temperature.
b) ***Cardiac:*** loss of cardiac muscle; small heart; cardiac arrhythmias, including atrial and ventricular premature contractions, prolonged His' bundle transmission (prolonged QT interval), bradycardia, ventricular tachycardia; sudden death.
c) ***Digestive-gastrointestinal:*** delayed gastric emptying, bloating, constipation, abdominal pain.
d) **Reproductive:** amenorrhea, low levels of luteinizing hormone (LH) and follicle-stimulating hormone (FSH).
e) ***Dermatological:*** lanugo (fine baby-like hair over body), edema.
f) ***Hematological:*** leucopenia.
g) ***Neuropsychiatric:*** depression, mild cognitive disorder.
h) ***Skeletal:*** Osteoporosis.

2) Related to purging (vomiting and laxative abuse):

- ***Metabolic:*** electrolyte abnormalities, particularly hypokalemic, hypochloremic alkalosis; hypomagnesemia.
- ***Digestive-gastrointestinal:*** salivary gland and pancreatic inflammation and enlargement with increase in serum amylase; esophageal and gastric erosion; dysfunctional bowel with haustral dilation.
- ***Dental:*** erosion of dental enamel, particularly of front teeth, with corresponding decay.
- ***Neuropsychiatric:*** seizures (related to large fluid shifts and electrolyte disturbances), mild neuropathies, fatigue and weakness, mild cognitive disorder.

Psychiatric Disorders in Childhood and Adolescents

Epidemiology:

It is estimated that between 12% and 15% of children have a mental disorder. Prevalence rates for Attention-Deficit/ Hyperactivity Disorder range from 2.2% to 9.9% in non-clinical settings. Conduct disorder prevalence rates from 1.5% to 5.5% with considerably higher rates in boys than in girls.

1- Mental Retardation

Definition

A significantly sub-average intellectual functioning (an IQ of approximately 70 or below) with onset before age 18 years and concurrent deficits or impairments in adaptive functioning.

Sub-types:

- **Mild mental retardation:** (IQ range-50 to70).
- **Moderate mental retardation:** (IQ range 35-40 to 50-55).
- **Severe mental retardation:** (IQ range 20-25 to 35-50).
- **Profound mental retardation:** (IQ below 20 or 25).

Comorbidity

Individuals with mental retardation have a prevalence of co-morbid mental disorders estimated to be three or four times greater than in the general population.

Most commonly associated mental disorders include:

- Attention-Deficit/Hyperactivity Disorder (ADHD).
- Pervasive Developmental Disorder (PDD).
- Stereotypic movement disorder.

Table (11): Intellectual and social functioning in mental retardation

	Profound→	**Severe→**	**Moderate →**	**Mild**
IQ	Under 20	20-34	35-49	50-69
Language	Severely limited	→	Limited	Delayed
Self care	Totally dependent on others	→	dependent	In dependent
Mobility	Immobile	→	Limited	Full mobility
Academic	Unable to read, write or count	→	→	Able to read, write or count with special education

Management:

- Special schools and centers for rehabilitation.
- Speech therapy.
- Family counseling.
- Rehabilitation.
- Medication for comorbid condition.

2- Attention Deficit Hyperactivity Disorder (ADHD)

Definition:

It is a triad of inattention, hyperactivity and impulsivity. They are manifested as follows:

A- Inattention:

- Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities.
- Often has difficulty sustaining attention in tasks or play activities.
- Often does not seem to listen when spoken to directly.
- Often does not follow through on instruction and fails to finish schoolwork.
- Often has difficulty in organizing tasks and activities.
- Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort.
- Is often easily distracted by external stimuli.
- Is often forgetful in daily activities.

B- Hyperactivity:

- Often fidgets with hands or feet or squirms in seat.
- Often leaves seat in classroom.
- Often runs or climbs excessively in situation, in which it is inappropriate to do so.
- Often has difficulty in playing or engaging in leisure activities quietly.
- Is often “on the go” or acts as if “driven by a motor”.
- Often talks excessively.

C- Impulsivity:

- Often blurts out answers before questions have been completed.
- Often has difficulty waiting turn.
- Often interrupts or intrudes on others.

Clinical types:

- Attention-Deficit/Hyperactivity Disorder, Combined Type.
- Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive type.
- Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive Impulsive Type.

Management:

- CNS stimulants e.g. methylphenidate 5 – l0mg / day.

Side effects: *growth retardation, depression, and drug habituation after age of 15 years.*

- Tofranil tables (Imipramine).
- Behavioral therapy.
- Counseling for the child and family.

3- Conduct Disorder

Definition:

A repetitive and persistent pattern of behavior, in which the basic rights of others or major age-appropriate norms or rules are violated, as manifested by the presence of three or more of the following criteria in the past 12 months, with at least one criterion present in the past 6 months:

Clinical picture:

Aggression to people or animals:

- Threatens others.
- Often initiates physical fights.
- Has used a weapon that can cause serious physical harm to others.
- Has been physically cruel to people.
- Has been physically cruel to animals.
- Has stolen while confronting victim.
- Has forced someone into sexual activity.

Destruction of Property:

- Has deliberately engaged in fire setting with the intention of causing serious damage.
- Has deliberately destroyed others' property (other than by fire setting).
- Has broken into someone else's house, building or car.
- Often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others).
- Has stolen items of nontrivial value without confronting a victim (e.g. shoplifting, but without breaking and entering).

Serious violations of rules:

- Often stays out at night despite parental prohibitions, beginning before age 13 years.
- Has run away from home overnight at least twice.
- Is often truant from school, beginning before age 13 years.

- The **onset** of conduct disorder may occur as early as age 5-6 years but is more often later in childhood or early adolescence. Onset is rare after age 16 years.

Management:

- Reward positive behavior.
- Parents should set clear and firm limits of bad behavior.
- Parents should inform the child in advance of consequence of exceeding bad behavior.
- Anti-aggressive medication as Tegretol (Carbamazepine).

4- Enuresis

Definition:

Repeated voiding of urine into bed or clothes whether involuntarily or intentional; occurs after the age of 5 years.

The voiding occurs at least twice per week for at least 3 months and produce clinically significant distress.

Subtypes:

Nocturnal only: (passage of urine only during nighttime sleep, usually during the first one-third of the night. This is the most common type).

Diurnal only: (passage of urine during waking hours, most commonly in the early afternoon on school days. This type is more common in female and is unusual after age 9).

Nocturnal and diurnal: (a combination of the two previous subtypes).

N.B.

- Primary enuresis is considered if there has been no preceding period of bladder control. In most cases the cause is thought to be due to delayed neurological maturation.
- Secondary enuresis if it follows a period of continence. It is a feature of regressive behaviour at times of stress.

Investigations: (to exclude physical causes).

- Urine analysis (to exclude urinary tract infection).
- Stool analysis (to exclude parasitic infestations).
- X-ray and CT spine for spina bifida.
- Investigate for diabetes mellitus and diabetes insipidus.

Management:

- Imipramine (Tofranil 25 mg tab): 1-3 tab before bedtime.
- Cetiprin (anticholinergic).
- Bladder training.
- Behavior therapy.

5- Functional non Organic Encopresis

Definition:

Repeated passage of feces into inappropriate places, whether involuntary or intentional, occurs after the age of 3 years. The condition occurs at least one event per month for at least 3 months.

Types:

Two types of course have been described:

a. **"Primary"** type in which the individual has never established fecal continence.
b. **"Secondary"** type in which the disturbance develops after a period of established fecal continence.

The cause is usually poor toilet training or psychological factor e.g. poor relation with the parents.

Management:

Investigations to exclude organic causes, emotional factors and IQ

Treatment:

Behavioural: the child is rewarded for successful control of defecation

Psychotherapy: individual psychotherapy and family psychotherapy may be required.

6- Stuttering

Definition and clinical picture:

Disturbance in normal fluency and time patterning of speech (inappropriate for the individual's age) that interferes with academic or occupational achievement or with social communication.

Management:

Speech therapy

Drug therapy: Haloperidol (Safinace) tab 0.5 mg twice daily.

7- Autistic Disorder

Definition:

- Marked impairment in *social interactions,* use of nonverbal behaviors such as eye-to-eye gaze, failure to develop peer relationships, lack of spontaneous seeking to share enjoyment, and lack of emotional reciprocity).
- Delay in or total lack of *spoken language*. If adequate speech, inability to initiate or sustain conversation; stereotyped repetitive use of language; lack of varied, spontaneous make-believe play).
- *Restricted repetitive and stereotyped patterns of behavior*, interests, and activities (e.g., preoccupation with restricted patterns of interest that is abnormal in intensity or focus; inflexible adherence to specific, nonfunctional routines.
- In most cases (75%) there is an associated diagnosis of mental retardation, commonly in the moderate range (IQ 35-50).

Onset: before 36 months of age.

Etiology: unknown.

Management:

- Counseling and support for parents.
- Behavior modification therapy.
- Speech therapy.
- Antipsychotic drugs as Haloperidol and Risperidone.

Psychiatric Disorders Associated with Menstruation and Pregnancy

Premenstrual syndrome

(PMS) is a regularly recurring cluster of mood and somatic symptoms, occurring during the luteal phase of the menstrual cycle.

About 40-60% of women have some premenstrual symptoms.

Premenstrual dysphoric disorder (PMDD)

In 5% of women of reproductive age, the symptoms are severe enough to seriously affect their lives and relationships, they are diagnosed as suffering of PMDD.

The real cause of PMDD is uncertain. Nutritional, hormonal and neurotransmitter imbalances have all been suggested to cause PMDD.

Criteria for premenstrual dysphoric disorder:

Symptoms must occur during the week before menses and remit a few days after onset of menses:

1. Depressed mood or dysphoria.
2. Anxiety or tension.
3. Affective lability.
4. Irritability.
5. Decreased interest in usual activities.
6. Concentration difficulties.
7. Marked lack of energy.
8. Marked change in appetite, overeating, or food craving.
9. Hypersomnia or insomnia.
10. Feeling overwhelmed.
11. Other physical symptoms, e.g., breast tenderness, bloating.
12. Symptoms must interfere with work, school, usual activities or relationships.

Management of PMDD:

Since tension, irritability and dysphoria. Since these states have been linked to serotonergic dysregulation, drugs which affect the serotonin system such as SSRIs have been proposed as treatment for PMDD.

Postnatal depressive syndromes

- Maternity blues.
- Postnatal depression.
- Puerperal psychosis.

Syndrome	Frequency %	Onset	Clinical features	Management
Maternity blues	60%	3 days after delivery	Episodes of irritability crying depression and emotional lability	Reassurance
Postnatal depression	10%	6^{th}-9^{th} wk after delivery	Excessive anxiety about the baby's health, self-blame, depressive symptoms, suicidal thoughts	Antidepressant Reassurance
Puerperal psychosis	0.2%	Within 6 year	Three types of psychotic disorder can occur following child birth: affective, schizophrenic and acute organic	Antipsychotic Antidepressants ECT Reassurance

Women who develop postnatal symptoms are 40% at risk of developing it in subsequent deliveries.

Why are women at that risk?

Research into the steroid hormones has gone beyond their reproductive functions to investigate their CNS interactions.

Ovarian hormones do have an effect on cognition, mood, and behavior.

They have a modulatory effect on Serotonergic and Dopaminergic systems.

Treatment in Psychiatry

The main lines of treatment for psychiatric disorders are:

1. Pharmacotherapy.
2. Psychotherapy.
3. Electroconvulsive therapy.
4. **Others.**

1- Pharmacotherapy

Basic concepts:

I- Organization of the brain:

- Brain is composed of neurons.
- Neurons synapse with each other.
- Neurons are arranged in circuits (functional units).

II- Synapses:

- Pre-synaptic terminal (contains neurotransmitters).
- Synaptic cleft (space between two neurons and contains elimination enzymes).
- Postsynaptic membrane (contains receptors).
- Site of neurotransmission.

III- Neurotransmitters:

- Chemical substances made in and released from pre-synaptic terminals.
- Act on specific post-synaptic receptors.
- Removed rapidly from the synaptic cleft by:
  - Reuptake transporters
  - Or enzymes (MAO, COMT, Choline-esterase)
- ***Neurotransmitters include:*** Dopamine, serotonin, noradrenaline, acetylcholine, GABA, glutamate, histamine

IV- Psychotropic drugs:

- Chemical molecules are groups of drugs, which act on neurotransmitter systems.
- They are either:
    - **Agonists:** increase release, prevent elimination or stimulate receptors.
    - **Antagonists:** block receptors.

V- Classes of psychotropic drugs:

- Antidepressants, antipsychotics, mood stabilizers, benzodiazepines, choline estrase inhibitors and others.

I- Antidepressants:

A- Neurotransmitter theory of depression:

- Depression results from hypo-function of the monoamine systems (serotonin, noradrenaline, and dopamine).
- The hypo-function may be due to:
    - Decrease in the neurotransmitter level.
    - Decrease in the response of receptors.

B- Mechanism of action of antidepressants:

- Mood elevating psychotropic agents.
- They are agonists to the monoamines (Increase monoamine activity in CNS) through:
    1. Reuptake inhibition.
    2. Inhibition of the MAO Enzyme.
    3. Increase release.
    4. Action on receptors.

C- Uses of antidepressants:

- Depression: primary or secondary.
- Panic disorder and Phobias.
- OCD: Obsessive Compulsive Disorder (selective serotonin reuptake inhibitors (SSRIs) and Anafranil).
- Neuropathic pains (facial neuralgia, migraine).
- Eating Disorders: (SSRIs).
- Impulsivity: (SSRIs).
- Nocturnal enuresis in children (Imipramine 10-30 mg/day).

D- Classes of antidepressants:

1) Tricyclic antidepressants:

They include:

- Imipramine (Tofranil 25 mg tab). Dose 75-150 mg/day.
- Amitryptiline (Tryptizol 25 mg tab). Dose 75-150 mg/day.
- Clomipramine (Anafranil 25 mg tab). Dose 75-150 mg/day.

Mechanism of action:

Increase intrasynaptic noradrenaline, serotonin, and dopamine levels by inhibiting their reuptake.

Adverse effects:

Anticholinergic:

- Dryness of the secretions, papillary dilatation, constipation,
- Retention of urine,
- Acute congestive glaucoma.

Antihistaminergic:

- Sedation and weight gain.

***Alpha 1 blockade*:**

- Postural hypotension.

Cardiac:

- Prolongation of P-R interval.

Contraindications:

- Risk of angle closure glaucoma.
- Risk of urine retention.
- Pregnancy and breastfeeding.
- Combination with non selective MAO inhibitors.
- Known hypersensitivity to tricyclics.

2) Monoamine oxidase inhibitors

They include:

- Non-selective irreversible inhibitors e.g. Phenelzine.
- Selective reversible inhibitors e.g. Moclobamide.

Mechanism of action:

Inhibition of MAO (enzyme), causing blockade of serotonin and noradrenaline catabolism.

Adverse effects:

Selective MAO inhibitors

- Nausea, constipation headache, dizziness.

Nonselective MAO inhibitors

- Hepatitis.
- Insomnia, euphoria, excitation.
  - Sweating, dizziness, headache.
  - Postural hypotension.
  - Hypertensive episodes with food containing tyramine.

Contraindications:

- Manic and delusional disorders.
- Pregnancy and lactation with alcohol.
- Food containing tyramine (Cheese reaction).
- With TCA, and SSRIs.

3) Selective serotonin reuptake inhibitors

They include:

- Fluoxetine (Prozac 20mg cap).
- Citalopram (Cipram 20mg tab).
- Sertraline (Lustral 50 mg tab).
- Fluovoxamine (Faverin 50mg tab).
- Paroxetine (Seroxat 20 mg tab).
- Es-citalopram (Cipralex 10 mg tab).

Mechanism of action:

Inhibition of the reuptake of serotonin.

Side effects:

- Safe.
- Mainly GIT disturbance, insomnia, weight loss, tremors, sexual dysfunction.

Contraindication:

Combination with nonselective MAO inhibitors, pregnancy and lactation.

4- Selective serotonin and norepinephrine reuptake Inhibitors (SNRIs):

- Venlafaxine (Efexor 75 mg cap XR).

5- Others:

- Tianeptin (Stablon tab).
- Bupropion (Wellbutrin 150 mg tab SR).
- Mertazapin (Remeron 30 mg tab).

II- Antipsychotics

A- Neurotransmitter theory of psychosis (schizophrenia):

- Psychosis results from hyper-function of the Dopamine.
- The hyperfunction may be due to:
  - *Increase in the neurotransmitter level.*
  - *Increase in the response of receptors.*

B- Uses of antipsychotics:

- Schizophrenia
- Mood disorder with psychotic features
- Dementia
- Agitation, excitement
- Schizoaffective disorders
- Anxiety disorders (in small doses)
- Organic psychosis

C- Mechanism of action of antipsychotics:

- ***Conventional***
  - They are antagonists to the dopaminenergic receptors in mesolimbic and mesostriatal systems.

- ***Novel antipsychotics***
  - They are antagonists to the dopaminenergic receptors in mesolimbic system.
  - They are antagonists to the serotonergic receptors in the frontal cortex.

E- Side effects:

1. Conventional antipsychotics

Neurological effects:

- *Extrapyramidal side effects:*
  a. Acute torsion dystonia.
  b. Parkinsonian features (akinesia, rigidity, tremor).
  c. Akathesia.
  d. Tardive dyskinesia.

N.B. Treatment of extra pyramidal side effects: addition of antiparkinsonians like Benzotropine (Cogentol) 2mg tab 1- 2 tab/day.

Neuroautonomic effects (atropine like effects):

- Postural hypotension.
- Dry mouth.
- Constipation.
- Urinary retention.
- Impaired eye accommodation.

Others:

- Photosensitization, skin pigmentation.
- Leucopenia.
- Hepatotoxicity.
- Pigment deposits in the retina.
- Neuroleptic malignant syndrome.

2. Atypical (Novel) antipsychotics:

Endocrine and metabolic effects:

- Dysmenorrhea, amenorrhea.
- Gynecomastia, hyperprolactinemia.
- Weight gain and hyperlipidemia.
- Impotence, frigidity.

Agranulocytosis *(With Clozapine).*

Table (12): Classes of antipsychotics

	Phenothiazines	**Butyrophenones**	**Thioxanthenes**	**Novel Antipsychotics**
Examples (tab.)	**Aliphatics:** Chlorpromazine (Largatil) [25ml tab, 100 ml tab (600-1000ml/day)] [25 ml amp. IM-1-2 amp./8hs] Thioridazine, (Melleril) [30 ml tab, 200-tab (1-3 tab/day)] **Piperazines:** Trifluoperazine (Stelazine) [5 ml tab (1-6 tab/day)]	Haloperidol (Safinace 5 ml/tab) (15-30 ml/day)	Flupenthixole (Fluanoxole) 0.5 and 3 m/tab 3-6 tab/day	**Risperidone** (Risperdal 2mg tab , 2-6mg/day) **Clozapine** (Leponex 100 mg tab, 300-600mg/day) **Olanzapine** (Zyprexa 5 mg tab, 10-20mg/day) **Quetiapen** (Seroquel 200 mg tab , 200-600 mg/day) **Aripiprazole** (Abilify 10 mg tab, 10-30 mg/day)
Long acting IM injections	Fluphenazine decanuate (Modecate) 25mg amp, 2 amp/ 2 weeks IM	Haloperidol decanuate (Haldol decanuas)50mg amp, 1-2 amp/ 4 weeks IM	Zuclopenthixole (Clopixol depot) 200 mg amp, 1 amp/3 Weeks IM	Rirperidone (Risperdal Consta) 25 mg amp, 1 amp/ 2 weeks

III- Mood Stabilizers

A- Biological theory of bipolar disorder:

- Paroxysmal episodes of hyperactive brain circuits (mania) alternating with episodes of hypoactivity (depression).
- Dysregulation of cell membrane excitability and intra-cellular G-protein and secondary messengers.

B- Uses of mood stabilizers:

- Bipolar disorder.
- Schizo-affective disorder.
- Resistant Depression.
- Resistant Schizophrenia.
- Impulsivity.
- Migraine and cluster headache.

C- Types of mood stabilizers:

1- Lithium salts

Examples:

- Lithium carbonate (Prianil) 400mg tab CR.

Dose:

- 800-1200 mg/day (monitored by the serum level, 0.6-1.0 mEq/L.).

Mode of action:

- Replaces sodium in the neurons thus stabilizing membrane excitability.
- Acts on G-proteins and secondary messengers (phospho inositol) and protein kinases to modulate their actions.

Side effects:

- Polyuria, GIT, tremors, hypothyroidism, and diabetes insipidus.

Contraindication:

- Renal failure.
- Concomitant treatments with diuretics.
- Salt-free diet.
- Nonsteroidal anti-inflammatory drugs.
- Pregnancy and lactation.

Investigation:

- Full clinical examination.
- ECG.
- Pregnancy test (to avoid teratogenic effect).
- Renal and thyroid function tests.

Toxicity:

Lithium has a narrow therapeutic window. High serum level can lead to seizures, confusion, coma and cardiac dysrythmia. The management of toxicity includes forced diuresis using Mannitol and Sodium bicarbonate infusion or hemodialysis.

2- Antiepileptics

Examples:

- Carbamezapine (Tegretol) 200mg/tab.
- Na-Valproate (Depakine chrono) 500 mg/tab.

Mode of action:

- They act on the membrane excitability and the Kindling through:
- Action on sodium, calcium and voltage gated channels.
- Increase level of GABA and decrease level of glutamate.

Dose:

- Carbamezapine (600-1200mg).
- Valproate (500-2000mg).

Side effects:

- GIT, weight gain, hepatotoxicity, skin allergy and blood dyscriasis.

Contraindication:

- Pregnancy.

Investigation:

- Liver function test.
- Complete blood picture.

IV- Benzodiazepines

A- Mechanism of action:

They act on the benzodiazepine site on GABA-A receptor to potentiate action of GABA, which is an inhibitory neurotransmitter.

B- Classes of benzodiazepines:

- ***Short acting:*** Alprazolam (Xanax 0.25-0.5 mg/tab) Loarazepam (Ativan 1-2 mg/tab).
- ***Intermediate acting:*** Diazepam (Valium 5-10 mg/tab), bromazepam (Lexotanil 1.5-3 mg/tab).
- ***Long acting:*** Clonazepam (Rivotril 0.5-2 mg/tab).

C- Side effects of benzodiazepines:

- Sedation and Drowsiness.
- Short term memory affection.
- Hypotonia.
- Withdrawal Symptoms: more with short acting.
- Hang over: more with long acting.
- Physical and psychological dependence.
- Tolerance.

D- Uses of benzodiazepines:

- Anxiety disorders.
- Hypnotics.
- Muscle relaxants.
- Antiepileptics.
- Pre-anathesia medications.
- Withdrawal of alcohol.
- Acute delirium, severe agitation.

E- Precautions:

- Unsuitable for long-term use.
- Elderly subjects.
- Moderate respiratory failure.
- Sleep apnea.
- Avoid in pregnancy and lactation.

- Avoid the following combinations:
    - Alcohol.
    - Cimetidine.
    - Muscle relaxants.
    - CNS depressants.

F- Problems of long term use of BZ: -

1. ***Tolerance:*** increasing the dose to get the required effect leading to its abuse.
2. ***Dependence:*** sudden withdrawal of the drug can lead to delirium, paranoia, sensitivity to light or sound, odd sensations, poor sleep, severe anxiety and irritability and sometimes epileptic fits.
3. ***Rebound effects:*** stopping a benzodiazepine can lead the person back to the original state often with worsening of the symptoms. Rebound insomnia is the most common. So, the rate of reduction of the dose should by very slow.

G- Good practice with benzodiazepines:

1- Short term use (not more than 6-8 weeks).
2- Use to deal with specific ***problems.***
3- Use only in cases of ***severe*** anxiety.
4- Intermittent dosing.
5- Lowest effective dose.

V- Choline-esterase inhibitors:

- Increase level of acetyl choline in the brain by inhibiting its eliminating enzyme (Choline-esterase).
- They include:
    - Donepezil (Aricept) 5mg tab.
    - Rivastigmine (Exelon) 1.5 mg tab.
- They are used to treat Alzheimer Dementia.

2- Psychotherapy

I- Supportive psychotherapy:

It is the most commonly practiced form of psychotherapy.

Aims:

1- To promote the possible psychological and social functioning in the face of disability.
2- To minimize or prevent deterioration, relapse and hospitalization.
3- To help the patient to cope with problems on a practical common sense level.

Techniques:

Ventilation, reassurance, encouragement, explanation, advice, environmental manipulation, and others.

II- Behavioral therapy:

This is based on the fact that neurotic symptoms are pathological unwanted learned patterns of behavior.
So if we can re-educate the patient to new styles of situation, we may control this abnormal conditioned reflex.

Various lines of behavioral therapy include:

Aversion therapy: the aim is to associate either mentally or physically certain disorders with unpleasant physical symptoms such as, antabuse with alcohol, which antagonizes its action giving unpleasant symptoms leading to discouragement to continue.

Positive conditioning: e.g. in nocturnal enuresis, a bell to wake the child when the bladder is full.

Flooding: exposure of the patient to the most dreadful situation.

Biofeedback therapy: the aim is to let the patient be aware of the autonomic physiological functions of the body. This can be done for example by EMG for controlling tension and spasm.

Gradual desensitization: by giving minor stimuli short of producing anxiety and gradually increasing the stimulus until target is reached with the help of relaxation exercises or anxyolitic drugs.

III- Cognitive therapy:

It is based on the observation that many people have a negative way of looking at themselves and the world and have characteristic cognitive distortions.

Cognitive therapy is used in the treatment of depression, eating disorders, generalized anxiety disorder, obsessive compulsive disorder and others.

The **aims** of cognitive therapy are to identify, and correct distorted conditions and thinking errors.

Techniques of cognitive therapy:

The patient is taught to:

- Monitor negative automatic thoughts by keeping a daily record.
- Recognize the connections between cognition, affect and behavior.
- Substitute more reality-based interpretations instead of these biased interpretations.

IV- Other types of psychotherapy:

- Family and marital therapy.

3- Electroconvulsive Therapy

Electroconvulsive therapy (ECT): it is a sort of Brain Synchronization Therapy (BST), which is based on regulation of the dysregulated receptors using electrical impulses.

Indications:

1- Severe depression especially with psychotic features.
2- Schizophrenia, mainly the catatonic type.
3- High suicidal risk, when quick response is needed.
4- Failure to respond to pharmacological treatment.

Contraindications:

1- Recent myocardial infarction.
2- Increased intracranial tension.
3- Chest infection.
4- Cerebral Hemorrhage.

Technique:

6-12 sessions twice-weekly using brief anesthesia using thiopental anesthesia and muscle relaxant.

4- Others Types of Therapy

- Social and environmental manipulations.
- Occupational therapy.

Psychiatric Emergencies

Definition:

A psychiatric emergency is a disturbance of behavior, emotions, thinking and/or action for which emergency and immediate intervention are required.

Epidemiology:

10% of all those who present to the emergency room are primarily suffering from a psychiatric disorder.

Types of psychiatric emergencies in medical settings:

- Excitement.
- Suicidal behaviour.
- Victims of acute severe stress.
- Drug- related emergencies.
- Psychiatric disorders-related emergencies.
- Food intake emergency problem.

1- Excitement

Definition:

The increased motor activity and aggression, both physical and verbal, often accompanied by autonomic hyperactivity.

Causes of excitement:

1) Excitement due to psychiatric disorders:

A. Psychotic disorders:

- Acute psychosis, paranoid and catatonic schizophrenia, delusional disorder and atypical psychosis.

B. Mood disorders:

- ***Manic episode:*** manic episodes, when acute or severe can be extremely disruptive to the patient's well-being, physical safety and environment.
- ***Depressive episode:*** patients may present with suicidal attempts or episodes of deliberate self-harm or agitation.

C. Personality disorders:

- Explosive personality disorder, borderline personality disorder, antisocial personality disorder, and hysterical personality disorder.

D. Disorders of impulse control.

- ***Include:*** intermittent explosive disorder, which is characterized by failure to resist aggressive impulses that result in serious assaultive acts.

E. Dissociative disorders

- Patients may present with hysterical excitement and/or fugue, but usually the excitement has a goal that is unconscious.

2) Excitement due to drug intoxication or withdrawal.

A- CNS stimulants:

- Amphetamines, cocaine.

B- Opiates and CNS depressants:

- Benzodiazepines, barbiturates, alcohol.

C- Hallucinogens and cannabinoids:

- LSD, cannabis.

3) Excitement due to medical disorders:

A. Major organ failure:

Hepatic, renal, cardiac or pulmonary.

B. CNS:

- Infections
- Head injuries
- Epilepsy
- Frontal or Temporal lobe dysfunction
- Dementia

C. Metabolic disorders:

- Hypoglycemia, Porphyria.

D. Autoimmune diseases

E. Electrolyte imbalance

F. Endocrinopathies.

4) Excitement due to non-medical or psychiatric disorders:

A- Reaction to frustration:

Frustrating situations may lead to hyper-aggressiveness, destructiveness, and hostile attacks.

B- Malingering:

Malingering is the intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentive such as avoiding military duty, avoiding work, obtaining financial compensation, evading criminal prosecution or obtaining drugs.

Management:

1) Emergency intervention of excitement and violence:

A. Verbal intervention: *(to calm the patient)*

- Show concern, do not humiliate the patient or make him or her feel rejected.
- Listen uncritically.
- Develop rapport with the patient.
- Assure the patient that you will do whatever you can to help him.
- Avoid provoking aggression.
- Assess clues to impending violence, such as, loud voice, threatening, increased muscle tension, hyperactivity, etc.

B. Physical intervention: (restraint and seclusion):

- Restraint must be performed by at least five persons.
- There should be a specific plan, e.g. each taking one limb.
- This is preferably done when the patient's attention is distracted.
- Parentral sedatives should be readily available and administered as soon as possible after restraint is completed.
- Leather restraints are the safest; they should be checked at frequent intervals by the staff for security.
- Nursing observation every 15 minutes
- Restraints were never to be removed without adequate number of staff present.

C. Pharmacological intervention:

	Parentral unit dose	**Side effects and complications**
I. Neuroleptics ***A. High potency*** Haloperidol (Haldol. 5mg/ml.)	5-10 mg / 6 hr.	EPS: dystonia, akathesia, parkinsonian symptoms. Orthostatic hypotension Excessive sedation
Thioxanthines (Clopixol Acuphase, 100 mg amp.)	100 mg IM / 3 days	
B. Low potency Chlorpromazine (25 mg/ml)	25-50 mg IM / 6 hr.	Sedation, anticholinergic symptoms, orthostatic hypotension, painful injection site
II. Anti-anxiety drugs Diazepam (10 mg/ 2ml.)	5- 10mg IV	Sedation, potentiate CNS depressants, respiratory depression, paradoxical effect
III. Hypnotics Sodium Amytal	2.5 or 5% solution IV - 1 cc / min.	Potentiate CNS depressants, respiratory depression, paradoxical excitement, bronchospasm, laryngospasm

2- Management of complications of excitement.

3- Management of underlying disorder.

2- Suicidal Behaviour

Suicide rates 9th over all leading causes of death (12.5 deaths/10.000).

Epidemiology:

Gender: Males> females.
Age: 40-55 years.
Race: Whites.
Marital Status: Less among the married.
Health: More in ill subjects.
Psychological problems: Depression (70%).
Prediction: Past family history, social and mental illness.

Clinical presentation:

1. Suicidal behavior:
Ingestion of drugs, slashing wrist, burning, shooting, jumping.

Causes:

- Mood disorders.
- Schizophrenia.
- Organic brain syndrome.
- Medical illnesses.
- Substance use related disorders.
- Panic disorder.
- Personality disorders.
- Non-psychiatric disorders.

2. Non fatal deliberate self-harm (DSH)
Definition: No true death wish but it is a cry for help or escape from intolerable situation.
Age: more in young female.
Correlates: major life events.

Management:

a- General rules:

- Take all suicide threats seriously even if they seem manipulative.
- The patient must be approached in an empathetic manner.
- Physicians must remain calm and uncritical.
- Obtain information from family members or friends.
- Ask the patient about suicide in privacy.
- Special nursing to protect the patient. Do not allow sharp instruments, tissue or medications in the patient's room, and maintain close observation.
- Suicidality has legal implications; you should document every step of management.

b. ICU admission if needed.

c. Management of complications.

d. Assessment of seriousness:

Judging the risk and arriving at a disposition require assessment. Some factors must be considered:

- The use of a serious method.
- Threatening, hopelessness, helplessness before the attempt.
- Planning and precautions taken by the patient to prevent rescue.
- Previous serious attempts.
- High risk factors (male gender, unemployment, depression and social isolation).

e. Assessment of motives:

- The wish to die.
- A cry for help.
- An attempt to influence other.
- Escape from emotional distress.

f. Assessment of mental state:

- **History:** Recent stressful life events, drug intake (medical psychotropics).
- **Past history of** medical illness, psychiatric disorder, positive family history.

g. Referral to a psychiatrist to treat the cause.

3- Victims of Rape, Assault and Disasters

Management:

A. History and examination:

- Medical History.
- Physical examination to detect and document evidence of injuries.
- Mental status examination.
- Investigations-, lab, radiological ... etc.

B. Treatment:

- Psychological: reassurance.
- Physical treatment of injuries.
- Pharmacological treatment by sedatives.
- Referral to a psychiatrist if Depression or Post Traumatic Stress Disorder is suspected.

4- Substance Use Related Emergency

A. Clinical presentation of over dose:

1. Circulatory Failure • Stimulants • Hypnotics • Alcohol	**2. Respiratory Failure, ARDS and Inhalation pneumonia** • Opiates • Barbiturates	**3. Myosis** • Opiates overdose
4. Mydriasis • Anticholinergics • Antidepressants • Hallucinogens • Stimulants	**5. Hyperthermia** • Alcohol • Stimulants • Neuroleptic malignant syndrome	**6. Seizures** ***Overdose*** of alcohol and cannabinoids ***Withdrawal*** of Benzodiazepines, Barbiturates and Alcohol
7. Agitation, Excitement ***Overdose*** of alcohol and Hallucinogens ***Withdrawal*** of BDZ, Barbiturates and alcohol	**8. Acute dystonic reaction** (Phenothiazines sensitivity) side effect of neuroleptics	**9. Abdominal distension, urinary retention** • Anticholinergics • Antidepressants • Antiparkinsonian
10. Hypertensive encephalopathy • Cheese reaction with MAOI	**11. Encephalopathy and Tremors** • Lithium encephalopathy	**12. Neuroleptic malignant syndrome** • (Phenothiazine toxicity)

B. Investigations:

- Urine screening and serum levels of the drug.
- Other investigations should be done according to the clinical condition.

C. Management:

- Rescue the patient.
- Enhance diuresis by fluids.
- Hemodialysis if the drug is dialyzable.
- Plasmapharesis if the drug is not dialyzable.
- Steroids IV or IM if needed.

Specific treatment according to the condition:

For opiate overdose:	Narcan 2 mg IV to be repeated until the pupil becomes dilated.
For Benzodiazepine over dose:	Give Flumazenil amp. as IV injection
Lithium intoxication:	Give Sodium bicarbonate, aminophylline , mannitol and. Hemodialysis..
Acute dystonic reaction:	Give Diazepam IV/infusion, coffee enema, or Akineton injection followed by antiparkinsonian oral drugs and oral diazepam. Stop the drug causing the dystonia.
Neuroleptic malignant syndrome:	Cold bath, ice enema, Dantrolene injection IV, Bromocryptine.
Cheese reaction: (from MAOI & Food containing Tyramine)	Phentolamine IV, Lasix IM and Chlorpromazine IM)
Seizures	Give diazepam injection by IV drip.
Violence, excitement:	Give neuroleptics (see management of violent patient)

5- Psychiatric Disorder Related Emergency

A) Panic attacks:

Are episodes of intense anxiety that come on suddenly, rise rapidly to the maximum intensity with an overwhelming sense of dread or terror associated with tachycardia, sweating and dyspnea.

B) Post-traumatic stress disorder

Extraordinary and psychologically traumatic event, followed by re-experiencing the event.

Emergency management (for both Panic and PTSD):

- Reassurance.
- Short acting benzodiazepines.
- Referral to a psychiatrist for proper management.

C) Factitious disorder and malingering:

These conditions are relatively uncommon but are important to recognize. In both cases symptoms are under voluntary control, but patients with factitious disorder have no immediately apparent reason for simulating symptoms. Factitious disorders and malingering are common problems in emergency medicine and they do not respond well to medical intervention.

6- Food Intake Problems

- Anorexia nervosa.
- Refusal of food.

Management

- Treatment of the cause.
- Hospitalization.
- IV fluids.
- Food by Ryle.
- Sedation by chlorpromazine IM or paraldehyde IM.

Psychiatry in Relation to Medicine

1- Psychiatric Presentation of Medical Illness

- 50-80% of patients treated in medical clinics have a diagnosable psychiatric illness, and 10-20% of medical patients suffer primarily from an emotional disorder.
- 50% of patients in psychiatric clinic populations have undiagnosed medical condition.
- 10% of self-referred psychiatric patients have symptoms that are solely due to a medical illness.

Psychiatric manifestations in association with medical disorders:

1. 1-May precede the onset of symptoms of medical disorders e.g. dementia, encephalopathies.
2. 2-Be an essential symptom of the medical disorder e.g. porphyria. Huntington's disease.
3. 3-Be a sequelae of the medical illness or drug treatment.

Etiology:

The occurrence of psychiatric symptoms in association with medical disorders may be attributed to the following factors:

1. Common pathophysiology.
2. Metabolic and impact of the medical disorder.
3. Patient's reaction to the illness.
4. Medications side effects on brain functions.

Table (13): Psychiatric symptoms of physical illnesses

Presentation	Disease
Anxiety	Hyperthyroidism Hyperparathyroidism Cushing's disease Pheochromocytoma Hypoglycemia, Acute intermittent porphyria Mitral valve prolapse Cardiac arrhythmias Angina pectoris.
Depression	Hypothyroidism Cushing's disease Addison's disease Hyper-and hypoparathyroidism Pneumonia, Other infections Debilitating disease Pancreatic carcinoma Intracranial tumors. Pernicious anemia.
Confusion, memory loss	Numerous medical conditions
Psychotic symptoms	Multiple sclerosis Wilson's disease SLE, Intracranial tumors. Hyperthyroidism Psychomotor epilepsy. Huntington's chorea.
Obsessive compulsive disorder	Tic disorders. Wilson. Huntington's. Manganese intoxication. Chorea. Parkinson's disease. Carbon monoxide intoxication
Mania	Huntington's disease. Idiopathic basal ganglia calcification. Stroke. Multiple sclerosis. Viral encephalitis. Frontal degenerative disorders. Uremia. Open-heart surgery Wilson's disease Trauma Post-encephalitic syndromes Vitamin B12 deficiency Traumatic brain injury.

2- Psychiatric Symptoms of Non-psychiatric Medication

Many medical patients develop psychiatric symptoms due to treatment with medical drugs.

Anti-convulsants:

- ***Phenytoin:*** irritability, emotional lability, confusion, and occasionally hallucinations and psychotic symptoms.
- ***Phenobarbital:*** may produce irritability and/or confusion in the elderly while excessive dosage will produce over sedation and respiratory depression.

Anti-inflammatory agents:

- ***Non-steroidal:*** anxiety, nervousness, emotional lability.
- ***Indomethacin:*** dizziness, disorientation, and confusion, also occasionally depression, hallucinations and psychosis
- ***Salicylates:*** in high doses can produce elation and euphoria.

Hormones

- ***Exogenous thyroid:*** excess can result in symptoms varying from restlessness and anxiety to a psychosis mimicking mania or acute schizophrenia. Inadequately treated patients may display symptoms of hypothroidism, e.g., fatigue, depression and psychosis
- ***Adrenal corticosteroids:*** (e.g. cortisone, dexamethazone, prednisone) in addition to physical complications, excessive or chronic use can produce widely varying affective symptoms (e.g. euphoria, hypomania, fatigue or depression) and/or degrees of toxic psychosis.
- ***Estrogen:*** restlessness, a feeling of well being (euphoria)
- ***Progesterone:*** may produce fatigue, irritability, tearfulness, and depression when given either alone or in combination as oral contraceptives (2-3% of patients).
- ***Androgen:*** restlessness, agitation, aggressiveness, euphoria.

Anticholinergics:

An anticholinergic psychosis can be caused by a variety of medical drugs;

- Antihistaminics.
- Antispasmodics.
- Ophthalmic drops, e.g. Atropine, Homatropine.
- Antiparkinsonian drugs. e.g. Cogentin, Artane, Akinetone, Scopolamine.

These drugs may also produce dry mouth, hypotension, distractibility and restlessness.

Antihypertensive and cardiac drugs

- ***Rauwolfia alkaloids (reserpine):*** can cause nightmares, confusion and profound depression in susceptible patients taking normal doses.
- ***Diuretics:*** (thiazide, frusemide. ethacrynic acid): Fatigue and mild depression.
- ***Methyldopa (Aldomet):*** persistent lassitude, verbal memory impairment, depression and confusion (on normal doses).
- ***Guanethidine (Ismelin):*** mild depression.
- ***Clonidine:*** Sedation, depression antagonized by tricyclic antidepressants; hypomania on withdrawal sometimes.
- ***Propranolol (Inderal) and other beta-blockers:*** fatigue, insomnia, nightmares, verbal memory impairment, and depression hyperactivity, paranoia rarely confusion and toxic psychosis.
- ***Digitalis and the cardiac glycosides:*** fatigue, apathy, depression and/or toxic psychosis especially' in the elderly.
- ***Antiarrhythmics:*** (quinidine procainamide, lidocaine): Mild confusion, mild to moderate delirium, occasionally depression.
- ***Sympathomimetics:*** may produce restlessness, anxiety, fear, panic, dizziness, irritability, and insomnia.

L-Dopa

Anxiety and agitation.
Confusion or frank delirium.
Hypomania.
Acute psychosis.
Major depression.

Hypoglycemics:

Symptoms of hypoglycemia can produce restlessness, anxiety and disorientation.

Antibiotics and related drugs:

- ***Tetracyclines:*** can produce emotional liability, depression, and confusion.
- ***Nalidixic acid and nitrofurantoin:*** lethargy, rarely confusion.
- ***Isoniazid (INH):*** Euphoria, transient memory loss and agitation.
- ***Cycloserine:*** lethargy and confusion, agitation, severe depression, psychosis, paranoid symptoms.

Antineoplastics:

Acute organic brain syndromes and depression can be produced by a variety of these agents either by a direct CNS effect or due to involvement of other systems (e.g. anemia).

3- Psychosomatic Disorders

A- Psychological factors affecting medical condition:

Stress, psychological and social factors influence the development and maintenance of medical diseases.

Mechanisms of disease production:

I- Psychological mechanisms:

"Stress", either internal or external, is required but is much likely to cause disease if:

1. The stress is severe (e.g. death of loved one, divorce, separation, major illness, injury, financial crisis).
2. The stress is chronic.
3. The patient has an increased level of general instability. e.g., difficult job or troubled marriage.

II- Physiological mechanisms:

1. Activation of autonomic nervous system (sympathetic and adrenal medulla; parasympathetic).

2. The releasing of corticotrophin releasing hormone (CRF) from the hypothalamus stimulate the pituitary gland to release ACTH, TSH, GH, FSH, which either act directly or release other hormones from the endocrine glands (e.g. cortisol, thyroxine, epinephrine, sex hormones).

Specific psychosomatic disorders:

1- Cardiovascular:

- ***Coronary artery disease:*** more common in type A personalities.
- ***Hypertension:*** chronic psychological stress plays a role in its development in genetically predisposed patients. May occur more frequently in type A people and in compulsive people. Treat first with antihypertensive relaxation therapy.
- ***Arrhythmias:*** palpitation, sinus tachycardia, and worsening of preexisting arrhythmias.
- ***Hypotension (fainting):*** produced by fear, probably due to peripheral vasodilatation and as decreased ventricular filling.
- ***Congestive heart failure:*** frequently develops after periods of stress. Anxiety tends to exacerbate the condition.

2- Respiratory:

- ***Bronchial asthma:*** occurs in people with a genetic predisposition, who become worse on exposure to acute or chronic stress.
- ***Hay fever:*** patients have an increased sensitivity to their allergens when stressed.
- ***Hyperventilation syndrome:*** a common presentation, on exposure to stress.

3- Gastrointestinal:

- ***Peptic ulcer:*** stress contributes to ulcer development, probably through its influence on the hypothalamic pituitary adrenal axis. The chronically frustrated and angry patient with increased gastric secretion (hyper secretor) is at risk.
- ***Ulcerative colitis:*** stressful emotional factors often precede disease development and can induce a relapse but the mechanism is unclear.
- Other intestinal conditions that are markedly influenced by psychosocial stress include regional enteritis (Chron's disease) and irritable bowel syndrome.

4- Musculoskeletal:

- ***Rheumatoid arthritis:*** symptoms frequently worsen after emotional stress. Stress may be acting as an immunosuppressant.
- ***Tension headache and migraine:*** caused by chronic muscular tension.
- ***Spasmodic torticollis:*** exacerbated by stress

5- Endocrine:

Conditions that are exacerbated by stress include hyperthyroidism and diabetes mellitus.

6- Genitourinary:

Psychosomatic influences are most prevalent in menstrual disorders, dysparunia, frigidity, pseudocyesis, premature ejaculation and impotence.

7- Skin:

A wide variety of psychosocial stressors can exacerbate certain skin conditions including psoriasis, chronic urticaria, pruritus and neurodermatitis (eczema).

8- Malignant diseases:

Psychological stressors appear to influence the development of a malignancy. This may be related to the effect of stress on the immune system.

11- Migraine:

Management of psychosomatic disorders

a. Treatment of the medical condition.
b. Treatment of the psychological symptoms.
   - Pharmacotherapy.
   - Psychotherapy (supportive, cognitive, behavioral).
   - Relaxation exercise and biofeedback training.

Liaison Psychiatry

What is it?

It is the practice of psychiatry in a general hospital.

When?

The liaison activity arises in response to a request from a doctor in different specialty.

Why?

30 to 65 percent of medical inpatients have significant psychiatric symptomatology.

The most frequent diagnoses:

- Depression.
- Anxiety.
- Organic brain syndrome.

Where?

All departments in the general hospital wards.

Reasons for referral:

- Diagnostic uncertainty.
- The patient's complaining continues despite best surgical or medical efforts.
- The patient is disturbing the ordered harmony of the ward.
- The staff is under strain.
- Hostility.
- Ability to manipulate.
- The staff becomes emotionally concerned about the patient's illness.
- The patient seems to have a psychiatric disorder.
- Suicidal gestures.
- The patient asked to see a psychiatrist.

Doctor Patient Relationship

Since medical diagnosis and treatment decisions are made on the basis of information arising from the interview alone so a good doctor patients communication and interview are considered as the cornerstone of good medical practice.

A skillful interview helps the physician to gather the data necessary to understand and treat the patient and increases the patient's understanding of the nature of the disease and increases compliance.

Model of the doctor patient relationship:

1- The active passive model:

In this model the patient assumes no responsibility for his/her own care and takes no part in treatment. This model is appropriate when the patient is unconscious immobilized or delirious.

2- The teacher student model:

The role of the patient takes the form of dependence and acceptance. This model is observed during a patient's recovery from surgery.

3- The mutual participation model:

Here there is equality between the role of the patient and the doctor, e.g. this model is useful in chronic illness as renal failure and diabetes.

4- The friendship model:

It is generally considered a dysfunctional model or even unethical as there is a blurring of boundaries between professionalism and intimacy.

The importance of an effective doctor patient communication:

1- To assess the nature of the problem and gather an accurate diagnosis.
2- To develop and maintain a therapeutic relationship.
3- To increase the patient compliance to treatment and decrease stress on patients.
4- Patient satisfaction and doctor satisfaction.

5- Put a treatment or management plan.
6- Also to decrease cost and resource effectiveness by preventing unnecessary prescriptions for medications or investigations.

Communications skills:

Medical students, either undergraduate or postgraduates, are in need to gain certain specific communication skills. They must know the techniques of talking and listening to people, aiming to diagnose, manage and treat an ill person in an appropriate manner.

Communication skills are either:

I- Core communication skills:

- Doctor patient interpersonal skills.
- Information gathering skills.
- Information giving skills.

II- Advanced communication skills:

- Skills for motivating patient compliance.
- Skills for specific situations.

1- Core-communication:

A- Doctor patient interpersonal skills:

These skills aim mainly to perform a good interview, which provides a powerful first impression to patients. The way, in which a doctor opens communication with a patient, has potentially powerful effects on how the remainder of the interview proceeds. Patients are often anxious on first encounters with doctors. A physician who can establish rapport quickly and show respect puts the patients at ease. This is vital to conduct a productive exchange of information, which is critical to reach a correct diagnosis and establish treatment goals. This could be achieved by:

- Creating an appropriate physical environment.
- Opening the interview in a good manner to alleviate the patient's resistance and anxiety or fear.
- Introducing one self.
- Showing empathy.
- Showing respect and interest.

- Showing warmth and support.
- Using an appropriate language, which is accurate, to the point and clear, avoiding jargon.

B- Information gathering skills:

It means eliciting information from the patient using an appropriate balance between open ended and closed questions. Start the interview by open questions, then clarify and continue with specific direct (closed) questions. Open questions give an extended answer, which helps the physician to get more information. It also gives the psychiatrist a chance to examine talk, thinking, and judgment (e.g. Tell me about the onset of your illness. This is an open ended question. While "when did you start feeling ill?" is an example of a closed question that demands a short answer).

Facilitation:

Facilitating patient's involvement in the interview and description of his/her symptoms can be done by using both verbal and non verbal clues that encourage the patient to keep talking (e.g. by nodding of head, say "go on" and by using other non verbal clues, such as using appropriate eye gaze, being attentive, leaning forward in one's seat and facial expression which reflects interest concern and empathy (active silence).

Reflection:

Here the doctor repeats and reformulates the information given by the patient. It helps clarify the complaint and also confirms that the doctor has well understood the patient's complaint and story.

The purpose of reflection:

1- To assure the doctor that he has correctly understood what the patient said.
2- Let the patient know that doctor is understanding and perceiving what he said.
3- It provides an empathetic relationship.

Silence:

We have to learn how to use periods of silence to help the patient recollect his/her thoughts, remember important points or even give the patient a chance to cry. Patient is then encouraged to continue.

Clarification:

In Clarification, the doctor attempts to get details from the patient about what the patient has already said (e.g. you said that you feel sad. Tell me when it you feel most is sad or anxious etc...). The doctor thereby clarifies the meaning of patients' communications to ensure that he understood the patient.

Summarizing and summation:

Every while during the interview the doctor can take a moment and briefly summarize what the patient has said. The skill of summarizing is important to assure both patient and doctor have the same shared understanding.

Re-statement:

Re-statement is just the repetition of the patient's talk. It is different from reflection. The main aim of this skill is to clarify the meaning and accuracy of old information, and to determine that the doctor is understanding and listening to what he/she has heard.

C- Information giving skills:

These are communication skills aiming to increase compliance. They include:

- Explanation.
- Advice.
- Positive reinforcement.
- Reassurance.

The main aim of this skill is to:

- Summarize important information.
- Check the patients' understanding.
- Arranging for follow up.

Explanation:

The doctor explains the treatment plan to the patient in an easy, clear language and allows the patient to understand and ask questions. The doctor must explain side effects and how to avoid them. This will help increase compliance to a great.

Positive reinforcement:

This positive reinforcement allows the patient to feel comfortable in telling the doctor anything, even about non-compliance.

Reassurance:

This is truthful reassurance of a patient. It leads to increased trust and compliance. False reassurance is lying, and can impair the patient's trust and compliance.

N.B. *False reassurance is given in the desire to make a patient feel better, but once a patient knows will be unlikely to accept or believe truthful ideas.*

Advice:

During advice we need to provide clear and simple information by:

i- Pushing important things first.

ii- Using repetition (restatement).

iii- Using tools like diagrams, written instruction, and technical aids.

iv- Checking patients' understanding: ask the patients to repeat what they had heard and understood "please can you tell me what you need to do or how you are going to use the medications".

2- Advanced communication skills:

Skills for specific situations

These skills are specific and need to be tailored according to the patient's condition or situation.

Skills related to the patient (difficult patients) e.g.

- Histrionic.
- Impulsive.
- Demanding.

- Narcissistic.
- Obsessive.
- Paranoid.
- Vigilant.
- Sociopathic.
- Malingering.

Skills related to communication problems:

- Fees.
- Confidentiality.
- Use of supervisors.
- Session length, missed appointments and continued care.
- Doctor patient interaction between scheduled appointments.

Coping with Physical Illness

The physical illness can be perceived as a stressful event:

1- Problem-focused or direct coping behaviors involve attempts to deal directly with the situation in order to make it more manageable or tolerable.

2- Emotion focused or palliative coping is more concerned with managing the emotions generated by the illness.

I- Coping with chronic illness:

There are many illnesses in which recovery is unlikely to happen and where there may be no change or even a progressive deterioration. The effects of the illness on individuals will depend very much on how they cope.

a. Denial:

Many patients appear to show a degree of denial soon after receiving the diagnosis of a major chronic illness, such as cancer. In many ways this response may be adaptive both in protecting patients from all the implications of having that illness and, in allowing them time to adapt.

b. Direct coping:

After the initial reaction, both direct and indirect coping may be seen in chronically ill patients. Patients who cope directly seek out and assimilate information about their condition, the treatment and the likely outcomes in addition they are motivated and active in adhering to treatment ad make all sorts of other adjustments in their lives to deal with the illness and related problems in a positive way.

c. Indirect coping:

Indirect coping consists of attempts to minimize the psychological impact of the illness by such strategies as denial or distraction.

Social factors generally, and social support in particular, have been identified as having a very important influence on the way

individuals cope with a chronic illness. Support from small group meetings with patients with a similar condition can also be valuable as a form for sharing worries and for learning information and new coping strategies **(Group therapy)**.

There are often major problems experienced by families in caring for a member with a chronic disease. Thus it is important for the family to be involved in the clinical management and to be adequately informed and prepared for dealing with the long-term demands which chronic illness often imposes **(Family therapy)**.

II- Coping with terminal illness:

1. Communicating with dying patients:

Most people do want to know the truth about their condition and that they cope better when communication has been open and honest. Similarly, openness in communication with close relatives also seems to be associated with a better outcome. However, there are important individual and ethnic differences and it is clear that communication should be guided by and tailored to the needs of individual patients.

2. Psychological responses of dying patients:

The reactions of dying patients to their impending death show wide variations depending on their situation, their personality and their degree of expectation or preparation for the 'bad news'. Some patients, who may have spent months of uncertainly, actually report feelings of relief when given their diagnosis. In contrast others may be shocked or numbed.

There are distinct phases of adjustment in dying patients. Patients will initially respond with denial and than a stage characterized by range and anger. This in turn, gives way to a bargaining phase and then a phase of depression before the reality of the terminal condition is finally accepted. Dying patients have major fears about many issues including pain, loneliness and the unknown as well as fears associated with their own clinical condition.

Psychosocial aspects of hospitalization:

The psychosocial disruption and limitations encountered in hospital life can produce a range of psychological responses, some of which can be severe enough to want psychiatric help. Lengthy stays in hospital may result in withdrawal, inertia and an inability to cope with life outside. Moreover, there are particular psychological problems associated with the hospitalization of younger children, where this involves separation from the home.

Psychological responses to specific treatment:

Some treatments are also very restricting and have been found to cause emotional and behavioral changes. In particular a number of studies have been made on patients kept in intensive care units (ICU), those maintained by haemodialysis.

Patients undergoing such treatments are doubly stressed in they are likely to show a psychological reaction to the severity of their illness as well as to the restriction imposed by the treatment. One of the most striking earlier observations was of poliomyelitis patients receiving artificial respiration in a tank respirator. Many of these patients were found to have quite marked psychological reactions, which included acute confessional states and hallucinations due to the sensory deprivation of the tank respirator.

Psychological interventions for stressful medical procedures:

Since studies have shown a relation between patients' psychological state and their recovery, it has been recognized that there could be considerable gains from providing a psychological intervention designed to reduce or minimize the psychological impact of a medical procedure. Five main groups:

i- Psychological support:

The doctor, nurse or psychologist typically allows the patient to talk about particular worries and then attempts to provide support and reassurance.

ii. Information provision:

Information about the likely sensations, including pain-, that the patient might expect to feel (sensory information) and information as to what will happen during the procedure (procedural information).

iii. Skills training interventions:

They have included training in breathing and in other aspects of bodily control, which are usually related to a particular investigative procedure. These have been found to be quite beneficial in helping patients cope with a medical procedure and in facilitating postoperative recovery.

A more general skills training procedure which has been found to be useful in recovery is (relaxation training) which has proved beneficial in reducing anxiety prior to different treatments and investigations.

iv. Modeling:

These procedures consist of allowing patients to see on film or videotape, other patients undergoing a similar investigative procedure, treatment or surgery.

v. Cognitive-behavioral interventions:

These are aimed at modifying or facilitating the way of patients and coping with the procedure they are about to undergo.

In summary, there is now considerable evidence to indicate that different types of psychological preparation can not only reduce the anxiety, stress and pain involved in many medical procedures but also that there are considerable related benefits (e.g. less analgesia, better recovery, faster discharge, etc).

Ethical and Legal Issues in Psychiatry

To practice psychiatry, an individual must possess a fairly comprehensive knowledge of the law as it applies to medicine and psychiatry, knowledge of professional ethics and common sense.

Psychiatric practice involves a number of important forensic issues including patient's rights, confidentiality, competency, involuntary treatment, and professional duties to patients and society.

Confidentiality:

It is the professional obligations to hold secret all information given by a patient to the physician.

Confidentiality can be ethically breached only in specific circumstances that include:

1- Emergencies.
2- The patient's request to release information.
3- Among designated treatment personnel:
   a. Other staff members treating the patient.
   b. Clinical supervisors.
   c. Consultants.
4- Upon judiciary requests (subpoena under penalty).
5- In specific types of information like:
   a- To report the abuse of spouses, children, the elderly and the disabled.
   b- To Warn and protect others. Patients should always be informed when confidentiality has been breached.

Malpractice:

It refers to professional negligence.

Legally, negligence is designated by what a reasonably prudent person would or would not do in the same or similar circumstances.

The usual claim of malpractice requires the litigant to produce an expert to establish the four Ds of malpractice:

1- ***Duty:*** the clinician owed a duty of case to the patient.
2- ***Deviation:*** the clinician deviated from this duty of case.

3- ***Damages:*** the deviation resulted in damages to the patient.
4- ***Direct causation:*** the deviation was the direct cause of the damages.

In other words, malpractice necessitates that:

There was the dereliction (negligent performance or omission) of a duty that directly led to damages.

In relative frequency of malpractice suits, psychiatry ranks eighth among the medical specialties in USA.

The number of suits against psychiatry is said to be small because of:

a) The patient's reluctance to expose a psychiatric history.
b) The skill of the psychiatrists.
c) The difficulty in linking injury with treatment.

Examples of malpractice in psychiatry:

- Suicide.
- Faulty diagnosis.
- Faulty treatment (too much, too little, or wrong).
- Improper certification.
- Harmful effects of ECT and drugs.
- Improper divulgence of information.
- Sexual intimacy or relations with patients.

Preventing liability (minimizing litigation)

The following approaches have proved valuable:

1- Clinician should provide only those kinds of care that they are qualified to offer.
2- The documentation of good care.
3- Consultation of other clinicians in difficult cases.
4- Informed consent given by the patient.

The consent form is a written document out timing the patient's informed consent to a proposed procedure.

Informed consent:

In general, informed consent requires that there is:

1- An understanding of the nature, risks and benefits of a procedure.
2- Knowledge of alternative procedures.
3- Awareness of the consequences of withholding consent.
4- The recognition that the consent is voluntary.
Thus a mentally competent adult may refuse treatment, although it is effective and involves little risk. The informed consent does not apply in emergency.
5- As a direct consequence of chronological age, minors may not be considered legally competent.

Patient rights:

1- The right to treatment.
2- The right to refuse treatment.
3- The right to the least restrictive alternatives.
4- Personal rights: psychiatric patients who are hospitalized are entitled to acceptable standards for decent surroundings, privacy, confidentiality, and visitation, freedom to wear personal clothing and communicate with others.

Psychiatric defenses:

1- Unfit to plead: (at a time of trial)

Must be one of the following:

A) Unable to understand the charge.
B) Unable to challenge a juror.
C) Unable to instruct counsel.
D) Unable to examine witness.
E) Unable to follow the progress of the trial.

It results in admission to special hospital until fit to plead.

2- Not guilty by reason insanity (special verdict):

The defendant is detained in hospital and time of release is decided by the home secretary or its equivalent.

3- Diminished responsibility:

It can only be used if the charge is murder to reduce it to manslaughter.

Competency:

Competency is determined on the basis of a persons ability to make a sound judgment.

Psychiatrists may assess a patient's competency in relation to several issues:

1- Competency to give informed consent.
2- Competency to enter into contracts.
3- Competency to stand trial.
4- Determining an individual's responsibility for criminal acts.

An individual is not responsible for criminal acts if, as a result of mental disorder, he lacks the ability to understand the wrongfulness' of his conduct.

Once declared incompetent, an individual is deprived of certain rights: he can not make contracts, marry, start a divorce action, handle his own property or practice his profession.

Guardianship:

Adults: when judicial proceedings determine that an adult patient is incompetent in certain capacities, legal guardians may be appropriate to act for the patient in these capacities.

Minors: minors are usually under the general guardianship of their parents, unless the court assigns guardianship to other parties.

Involuntary treatment:

1- Involuntary psychiatric treatment:

A) Involuntary psychiatric hospitalization for limited periods is usually permissible if qualified clinicians determine that the patient is:-

a. Suicidal.
b. Homicidal.
c. Gravely disabled (i.e., unable to provide for food, clothing, or shelter) because of a mental disorder.

B) Other forms of involuntary treatment:

Administrations of psychiatric medications, seclusion, or physical restraints are often permissible only during immediate psychiatric emergencies.

N.B:

Seclusion is the retention of an inpatient in a bare room to contain a clinical situation that may result in an emergency.

Restraint involves measures to confine a patient's bodily movements such as the use of leather cuffs and ankles or strait jackets.

2- Involuntary medical treatment:

An informed consent must be obtained from the patient or guardian before patients can be given treatment.

However, if the; patient cannot give informed consent because of unconsciousness, or other severe cognitive impairments, emergency medical treatment is allowed.

Psychiatric Interview
And Mental State Examination

As in any branch of medicine, psychiatry begins with taking a good history and examining the patient. Virtually all transactions in clinical psychiatry revolve around interviewing and information gathering skills. The history is very similar in format to that taken in general medicine, while the mental state examination is something very particular to psychiatry.

I- History taking

1- Personal data:

- Name, age, sex, occupation, residence and marital status.

2- Chief complaint:

- From the patient or the informant:
- "Why the patient came to the psychiatrist"
- In patient's and informant's own words and in Arabic.

3- History of present illness:

- History of the principal symptoms or complaint
- Description of the symptoms in chronological order of occurrence
- Clarify onset, course and duration

> ***-When did the illness start?***
> ***-Was there anything that precipitated the illness?***
> ***-How did the condition develop?***

- Ask and verify the presence of any other related symptoms
- Ask about associated functions e.g. appetite, weight, sleep, sexual drive.
- Ask about impact of illness on occupation, social function, daily activity and personal relation.
- Assess risk of suicide, violence (if you feel that it is important)
- How the patient view his problem.

4- Past history:

A- Medical and surgical history:

- Clarify the presence of medical illness, type of medications used, duration of treatment, relation of the medical illness to the psychiatric complaint.
- Also hospital admission due to physical illness or for operation.

B- Past psychiatric history:

- Ask about past psychiatric illness, medication given, compliance of the patient and adherence to treatment.
- Ask about previous hospital admission, treatment given, how did the patient remain between admissions.

5. Family history:

a) Parents: (father and mother)

- Age.
- Occupation.
- Health.
- Character.
- Relation to the patient.

b) Siblings: (sisters and brothers)

- Number of sibs.
- Order of the patient.
- Their level of education.
- Their relation with the patient.

c) Family history of medical and psychiatric illnesses:

Ask about the presence of the following disorders:

Clarify the degree of relation to the patient if positive

- Family neuro-psychiatric history:
  - Similar conditions.
  - Any other psychiatric disorder.

- Drug dependence.
- Epilepsy.
- Neurological disorders.

- Family medical history:
  - History of any physical illness in the family.

6. Personal History:

a) Prenatal, natal and postnatal history:

- Maternal exposure to diseases, drugs or radiation during pregnancy.
- Any problems affecting newborn during labor, or in the first year of life.

b) Developmental history:

- Milestones of development, toilet training feedback habits…etc.

c) Symptoms of behavioural problems during childhood:

- Temper tantrum, thumb suckling, nail biting, nocturnal enuresis, tics, phobia…etc.

d) Scholastic history:

- Level of graduation.
- Performance, difficulties.
- If there is any sudden decline in achievement.
- Relation to peers and teachers.
- Truancy and behavioural problems.

e) Occupational history:

- Jobs (in chronological order, current job and feelings about it)
- Duration of stay in each.
- Reason of leaving, if any.

f) Psychosexual history:

- Age of reaching puberty or having menarche.
- Menstrual history including regularity and associated psychiatric symptoms.
- Sexual orientation (heterosexual or homosexual).
- Premarital and extramarital sexual relationships.
- History of sexual abuse.

g) Marital history:

- Age at marriage.
- Duration of courtship.
- Reason of separation or divorce.
- Relation with the spouse.
- Any psychiatric illness in the spouse.
    - ***Children:***
        - Number.
        - Chronological list of their names, age and sex.
        - Any psychiatric or physical illness
        - Relation between the child and the patient.
    - ***Pregnancy and lactation for female patients:***
        - No. of pregnancies.
        - If there was any problem during each.
        - The date of last pregnancy and labour or even abortion.
        - If there was any psychological troubles after any labour.
        - If the patient is lactating at the present time.
        - Method of family planning.

h) Military history:

- General adjustment
- Combat, injuries
- Referral to psychiatrists
- Type of discharge (e.g. medical discharge)

i) Forensic history:

- Any troubles with the law or police, any convictions.

II- Pre-morbid personality: (premorbid level of functioning)

- Personality traits.
    a. Extravert or introvert.
    b. Emotionally stable or emotionally unstable.
    c. Psychoticism or neuroticism
- Character (prone to worry, strict, rigid, impulsive, dependent etc…).
- Interest, hobbies and leisure activities.
- Predominant mood (cheerful, suspicious etc...)
- Attitude, value systems, moral standards.
- Religious background (strict, liberal, religious practice etc).
- Past or current uses of illicit drugs, alcohol and smoking.

III- Mental state examinations:

1. Appearance and behaviour:

- Dressing, self hygiene.
- Attitude to examiner.
- Cooperativeness.
- Posture, gait and psychomotor activity.

2. Speech:

- Spontaneous or in answer.
- Productivity (amount and stream).
- Continuity.
- Volume, tone and pitch.
- Coherence.
- Relevancy (to the point or offpoint).
- Sample of the patient's speech.

3. Mood and affect:

- **Mood:** (how does patient say he or she feels)
  It is the person's internal feeling state. It is subjective (described by the patient) and refers to the pervasive emotional tone displayed.
  Evaluation of mood should include the following parameters:

a. Type/Quality e.g. depressed, euphoric.
b. Reactivity, Intensity, depth.
c. Stability/Duration.
d. Pattern.

- **Affect:** (the outward expression of the patients inner experiences)
  It refers to the visible, external or objective manifestations of a patient emotional state. It is the record of the momentary dynamic changes in the expression of emotional responses.
  Evaluation of affect should include the following parameters
  How examiner evaluates patient's affects
  a. Type/Quality e.g. happiness/sadness.
  b. Range/Variability.
  c. Degree/Intensity e.g. blunted affect.
  d. Stability/Reactivity e.g. labile affect: affective changes that occur rapidly and frequently.
  e. Appropriateness /Inappropriateness.
  f. Congruence.

4. Thinking

a. **Stream and productivity:** e.g. Overabundance of ideas, paucity of ideas, flight of ideas, rapid thinking, slow thinking, hesitant thinking, does patient speak spontaneously or only when questions are asked, thought block etc…
b. **Form:** e.g. tangentiality, relevancy, offpointing, incoherence and loose association.
c. **Content:** (ideas loaded by emotions so take priority)
   - Preoccupation.
   - Overvalued ideas.
   - *Obsessions:* an obsession is an idea, image or impulse which recognized by the patients as his/her own, but which is experienced as repetitive, intrusive and distressing. Resisting it causes anxiety.
   - Ideas of reference. (How ideas began their content). The meaning the patient attributes to them.

- Delusions: a delusion is a false fixed belief that is inconsistent with cultural and subcultural norms, inappropriate for the person' and is not altered with proof to the contrary.
- Types of delusions: (persecutory, grandiosity, infidelity, guilt, somatic etc…)

d. Control: disturbances e.g. thought reading, thought insertion, thought withdrawal and thought broadcasting.

5. Perceptual disturbances:

- **Hallucinations:** perception that occur without the presence of actual stimulus. They could be auditory, visual, tactile, olfactory and gustatory.
  - ***Ask about:*** content (ordering, insulting etc…)
  - Circumstances of the occurrence and attribution (where is the source).
  - Emotional and behavioral reaction.
- **Illusions:** misperception of an existing stimulus.
  - Depersonalisation and derealization: Extreme feelings of detachment from self or from the environment.

6. Cognitive functions:

- **Alertness:** awareness of environment, attention span, clouding of consciousness, fluctuations in levels of awareness, somnolesence, stupor, lethargy, fugue state, coma.
- **Attention and concentration:** e.g. days of week backwards or subtracting 7 from 100 and keep subtracting 7s.
- **Orientation:**
  - ***Time:*** whether patient identifies the day correctly; or approximate date, time of day; if in a hospital, knows how long he or she has been there; behaves as though oriented to the present
  - ***Place:*** whether patient knows where he or she is.

- ***Person:*** whether patient knows persons around him/her (e.g.: who the examiner is and the roles or names of the persons with whom in contact).

- **Memory:**
  - ***Immediate retention and recall:*** E.g.: ability to repeat 3-4 items and recall them in 1min and then 5 min, or an address or a short story.
  - ***Recent memory:*** past few days, what did patient do yesterday, the day before, have for breakfast, lunch, dinner?
  - *Remote memory:* childhood data, important events known to have occurred when the patient was younger or free of illness, personal matters, and neutral material.
- **Abstract thinking:**
  - Disturbances in concept formation; manner in which the patient conceptualizes or handles his or her ideas; similarities (e.g., between apples and pears), differences, absurdities; meanings of simple proverbs, such as, (people in glass houses shouldn't threw stones) answers may be concrete (giving specific examples to illustrate the meaning) or overly abstract (giving generalized explanation); appropriateness of answers

7. Judgment:

a) *Social judgment:* subtle manifestations of behaviour that are harmful to the patient and contrary to acceptable behaviour in the culture; does the patient understand the likely outcome of personal behaviour and is patient influenced by that understanding; examples of impairment.

b) *Test judgment:* patient's prediction of what he or she would do in imaginary situations; for instance, what patient would do with a stamped, addressed letter found in the street.

8. Insight:

- Degree of personal awareness and understanding of the illness, relation of symptoms to illness, and need of treatment. Examples:
- Complete denial of illness.
- Slight awareness of being sick and needing help but denying it at the same time.
- Awareness of being sick but blaming it on others, on external factors, on medical or unknown organic factors.
- *Intellectual insight:* admission of illness and recognition that symptoms or failures in social adjustment are due to irrational feelings or disturbances, without applying that knowledge to future experiences.
- *True emotional insight:* emotional awareness of the motives and feelings.

IV. Physical assessment

- Physical examination (general medical full examination).
- Neurological examination.

V- Investigation

- Psychological, social investigation, neurological, or laboratory tests.

VI. Summary of findings and formulation

Mental symptoms, medical and laboratory findings, and psychological and neurological test results, if available, are summarized. Include medications patient has been taking, dosage, and duration.

VII. Diagnosis

Diagnostic classification is made according to the international classification system.

VIII. Prognosis

Opinion about the probable future course, extent, and outcome of the disorder; good and bad prognostic factors; specific goals of therapy.

X. Comprehensive treatment plan

Modalities of treatment recommended, role of medication, inpatient or outpatient treatment, frequency of sessions, probable duration of therapy; type of psychotherapy; individual, group, or family therapy.

REFERENCES

DSM-IV (1994): Desk Reference: Diagnostic Criteria for DSM-IV.

ICD (10) (1992): Classification of Mental and Behavioral Disorders: Clinical Description and Diagnostic Guidelines. WHO library Cataloging in Publication Data.

Kaplan HI., Sadock BJ. (1996): Pocket Handbook of Clinical Psychiatry, 2nd edition, Williams & Wilkins Press.

Khalil AH. (2006): Medical Psychology, El-Shazly Printing House.

Levi MI. (2003): Basic Notes in Psychiatry, 3rd LibraPharm Limited.

Mayou R., Sharpe M. and Carson A. (2003): ABC of Psychological Medicine, BMJ Publishing Group.

Murphy MJ et al., (2004): Blueprints Psychiatry, 3rd Edition, Blackwell Publishing.

Nemeroff CB., Schatzberg, AF. (2005): Recognition and Treatment of Psychiatric Disorders, American Psychiatric Press, Inc.

Okasha A. (1988): A guide to Psychiatry Anglo-Egyptian Bookshop.

Puri BK (1997): Pocket Essentials of Psychiatry. WB Sounders' Limited. London.

Sadek A. (2002): Psychiatric for Non- Psychiatric Physicians, El-Shazly Printing House.

Semple D. et al., (2005): Oxford handbook psychiatry. oxford university press, inc. New York.

Stevens L., Rodin I. (2001): Psychiatry: An Illustrated Color Text, Harcourt Publishers Limited.

World Health Organization (2000): WHO Guide to Mental Health in Primary Care, The Royal Society of Medicine Press Limited.

World Psychiatric Association WPA (1997): Core Curriculum in Psychiatry for Medical Students.

APPENDIX

ICD-10 Classification of Mental and Behavioral Disorders: Clinical Description and Diagnostic Guidelines

WHO

List of categories

F00 – F09
Organic, including symptomatic, mental disorders

F00 Dementia in Alzheimer's disease
- F00.0 Dementia in Alzheimer's disease with early onset
- F00.1 Dementia in Alzheimer's disease with late onset
- F00.2 Dementia in Alzheimer's disease, atypical or mixed type
- F00.9 Dementia in Alzheimer's disease, unspecified

F01 Vascular dementia
- F01.0 Vascular dementia of acute onset
- F01.1 Multi-infarct dementia
- F01.2 Subcortical vascular dementia
- F01.3 Mixed cortical and subcortical vascular dementia
- F01.8 Other vascular dementia
- F01.9 Vascular dementia, unspecified

F02 Dementia in other diseases classified elsewhere
- F02.0 Dementia in Pick's disease
- F02.1 Dementia in Creutzfeldt – Jakob disease
- F02.2 Dementia in Huntington's disease
- F02.3 Dementia in Parkinson's disease
- F02.4 Dementia in human immunodeficiency virus [HIV] disease
- F02.8 Dementia in other specified diseases classified elsewhere

F03 Unspecified dementia

A fifth character may be added to specify dementia in F00 – F03, as follows:
- .*x*0 Without additional symptoms
- .*x*1 Other symptoms, predominantly delusional
- .*x*2 Other symptoms, predominantly hallucinatory
- .*x*3 Other symptoms, predominantly depressive
- .*x*4 Other mixed symptoms

F04 Organic amnesic syndrome, not induced by alcohol and other psychoactive substances

F05 Delirium, not induced by alcohol and other psychoactive substances

F05.0 Delirium, not superimposed on dementia, so described
F05.1 Delirium, superimposed on dementia
F05.8 Other delirium
F05.9 Delirium, unspecified

F06 Other mental disorders due to brain damage and dysfunction and to physical disease

F06.0 Organic hallucinosis
F06.1 Organic catatonic disorder
F06.2 Organic delusional [schizophrenia-like] disorder
F06.3 Organic mood [affective] disorders
.30 Organic manic disorder
.31 Organic bipolar disorder
.32 Organic depressive disorder
.33 Organic mixed affective disorder
F06.4 Organic anxiety disorder
F06.5 Organic dissociative disorder
F06.6 Organic emotionally labile [asthenic] disorder
F06.7 Mild cognitive disorder
F06.8 Other specified mental disorders due to brain damage and dysfunction and to physical disease
F06.9 Unspecified mental disorder due to brain damage and dysfunction and to physical disease

F07 Personality and behavioural disorders due to brain disease, damage and dysfunction

F07.0 Organic personality disorder
F07.1 Postencephalitic syndrome
F07.2 Postconcussional syndrome
F07.8 Other organic personality and behavioural disorders due to brain disease, damage and dysfunction
F07.9 Unspecified organic personality and behavioural disorder due to brain disease, damage and dysfunction

F09 Unspecified organic or symptomatic mental disorder

F10 – F19
Mental and behavioural disorders due to psychoactive substance use

F10. – Mental and behavioural disorders due to use of alcohol

F11. – Mental and behavioural disorders due to use of opioids

F12. – Mental and behavioural disorders due to use of cannabinoids

F13. – Mental and behavioural disorders due to use of sedatives or hypnotics

F14. – Mental and behavioural disorders due to use of cocaine

F15. – Mental and behavioural disorders due to use of other stimulants, including caffeine

F16. – Mental and behavioural disorders due to use of hallucinogens

F17. – Mental and behavioural disorders due to use of tobacco

F18. – Mental and behavioural disorders due to use of volatile solvents

F19. – Mental and behavioural disorders due to multiple drug use and use of other psychoactive substances

Four- and five-character categories may be used to specify the clinical conditions, as follows:

F1*x*.0 Acute intoxication
- .00 Uncomplicated
- .01 With trauma or other bodily injury
- .02 With other medical complications
- .03 With delirium
- .04 With perceptual distortions
- .05 With coma
- .06 With convulsions
- .07 Pathological intoxication

F1*x*.1 Harmful use

F1*x*.2 Dependence syndrome
- .20 Currently abstinent
- .21 Currently abstinent, but in a protected environment
- .22 Currently on a clinically supervised maintenance or replacement regime [controlled dependence]
- .23 Currently abstinent, but receiving treatment with aversive or blocking drugs
- .24 Currently using the substance [active dependence]
- .25 Continuous use
- .26 Episodic use [dipsomania]

F1*x*.3 Withdrawal state
- .30 Uncomplicated
- .31 Convulsions

F1*x*.4 Withdrawal state with delirium
- .40 Without convulsions
- .41 With convulsions

F1*x*.5 Psychotic disorder
- .50 Schizophrenia-like
- .51 Predominantly delusional
- .52 Predominantly hallucinatory
- .53 Predominantly polymorphic
- .54 Predominantly depressive symptoms
- .55 Predominantly manic symptoms
- .56 Mixed

F1*x*.6 Amnesic syndrome

F1*x*.7 Residual and late-onset psychotic disorder
- .70 Flashbacks
- .71 Personality or behaviour disorder
- .72 Residual affective disorder
- .73 Dementia
- .74 Other-persisting cognitive impairment
- .75 Late-onset psychotic disorder

F1*x*.8 Other mental and behavioural disorders

F1*x*.9 Unspecified mental and behavioural disorder

F20-F29
Schizophrenia, schizotypal and delusional disorders

F20 Schizophrenia

F20.0 Paranoid schizophrenia
F20.1 Hebephrenic schizophrenia
F20.2 Catatonic schizophrenia
F20.3 Undifferentiated schizophrenia
F20.4 Post-schizophrenic depression
F20.5 Residual schizophrenia
F20.6 Simple schizophrenia
F20.8 Other schizophrenia
F20.9 Schizophrenia, unspecified

A fifth character may be used to classify course:

.*x*0 Continuous
.*x*1 Episodic with progressive deficit
.*x*2 Episodic with stable deficit
.*x*3 Episodic remittent
.*x*4 Incomplete remission
.*x*5 Complete remission
.*x*8 Other
.*x*9 Course uncertain, period of observation too short

F21 Schizotypal disorder

F22 Persistent delusional disorders

F22.0 Delusional disorder
F22.8 Other persistent delusional disorders
F22.9 Persistent delusional disorder, unspecified

F23 Acute and transient psychotic disorders

F23.0 Acute polymorphic psychotic disorder without symptoms of schizophrenia
F23.1 Acute polymorphic psychotic disorder with symptoms of schizophrenia
F23.2 Acute schizophrenia-like psychotic disorder
F23.3 Other acute predominantly delusional psychotic disorders
F23.8 Other acute and transient psychotic disorders
F23.9 Acute and transient psychotic disorders unspecified

A fifth character may be used to identify the presence or absence of associated acute stress:

.*x*0 Without associated acute stress
.*x*1 With associated acute stress

F24 Induced delusional disorder

F25 Schizoaffective disorders

F25.0 Schizoaffective disorder, manic type
F25.1 Schizoaffective disorder, depressive type
F25.2 Schizoaffective disorder, mixed type
F25.8 Other schizoaffective disorders
F25.9 Schizoaffective disorder, unspecified

F28 Other nonorganic psychotic disorders

F29 Unspecified nonorganic psychosis

F30 – F39
Mood [affective] disorders

F30 Manic episode
- F30.0 Hypomania
- F30.1 Mania without psychotic symptoms
- F30.2 Mania with psychotic symptoms
- F30.8 Other manic episodes
- F30.9 Manic episode, unspecified

F31 Bipolar affective disorder
- F31.0 Bipolar affective disorder, current episode hypomanic
- F31.1 Bipolar affective disorder, current episode manic without psychotic symptoms
- F31.2 Bipolar affective disorder, current episode manic with psychotic symptoms
- F31.3 Bipolar affective disorder, current episode mild or moderate depression
  - .30 Without somatic syndrome
  - .31 With somatic syndrome
- F31.4 Bipolar affective disorder, current episode severe depression without psychotic symptoms
- F31.5 Bipolar affective disorder, current episode severe depression with psychotic symptoms
- F31.6 Bipolar affective disorder, current episode mixed
- F31.7 Bipolar affective disorder, currently in remission
- F31.8 Other bipolar affective disorders
- F31.9 Bipolar affective disorder, unspecified

F32 Depressive episode
- F32.0 Mild depressive episode
  - .00 Without somatic syndrome
  - .01 With somatic syndrome
- F32.1 Moderate depressive episode
  - .10 Without somatic syndrome
  - .11 With somatic syndrome
- F32.2 Severe depressive episode without psychotic symptoms
- F32.3 Severe depressive episode with psychotic symptoms
- F32.8 Other depressive episodes
- F32.9 Depressive episode, unspecified

F33 Recurrent depressive disorder

F33.0 Recurrent depressive disorder, current episode mild
.00 Without somatic syndrome
.01 With somatic syndrome
F33.1 Recurrent depressive disorder, current episode moderate
.10 Without somatic syndrome
.11 With somatic syndrome
F33.2 Recurrent depressive disorder, current episode severe without psychotic symptoms
F33.3 Recurrent depressive disorder, current episode severe with psychotic symptoms
F33.4 Recurrent depressive disorder, currently in remission
F33.8 Other recurrent depressive disorders
F33.9 Recurrent depressive disorder, unspecified

F34 Persistent mood [affective] disorders

F34.0 Cyclothymia
F34.1 Dysthymia
F34.8 Other persistent mood [affective] disorders
F34.9 Persistent mood [affective] disorder, unspecified

F38 Other mood [affective] disorders

F38.0 Other single mood [affective] disorders
.00 Mixed affective episode
F38.1 Other recurrent mood [affective] disorders
.10 Recurrent brief depressive disorder
F38.8 Other specified mood [affective] disorders

F39 Unspecified mood [affective] disorder

F40 – F48
Neurotic, stress-related and somatoform disorders

F40 Phobic anxiety disorders
- F40.0 Agoraphobia
  - .00 Without panic disorder
  - .01 With panic disorder
- F40.1 Social phobias
- F40.2 Specific (isolated) phobias
- F40.8 Other phobic anxiety disorders
- F40.9 Phobic anxiety disorder, unspecified

F41 Other anxiety disorders
- F41.0 Panic disorder [episodic paroxysmal anxiety]
- F41.1 Generalized anxiety disorder
- F41.2 Mixed anxiety and depressive disorder
- F41.3 Other mixed anxiety disorders
- F41.8 Other specified anxiety disorders
- F41.9 Anxiety disorder, unspecified

F42 Obsessive – compulsive disorder
- F42.0 Predominantly obsessional thoughts or ruminations
- F42.1 Predominantly compulsive acts [obsessional rituals]
- F42.2 Mixed obsessional thoughts and acts
- F42.8 Other obsessive – compulsive disorders
- F42.9 Obsessive – compulsive disorder, unspecified

F43 Reaction to severe stress, and adjustment disorders
- F43.0 Acute stress reaction
- F43.1 Post-traumatic stress disorder
- F43.2 Adjustment disorders
  - .20 Brief depressive reaction
  - .21 Prolonged depressive reaction
  - .22 Mixed anxiety and depressive reaction
  - .23 With predominant disturbance of other emotions
  - .24 With predominant disturbance of conduct
  - .25 With mixed disturbance of emotions and conduct
  - .28 With other specified predominant symptoms
- F43.8 Other reactions to severe stress
- F43.9 Reaction to severe stress, unspecified

F44 Dissociative [conversion] disorders

F44.0 Dissociative amnesia
F44.1 Dissociative fugue
F44.2 Dissociative stupor
F44.3 Trance and possession disorders
F44.4 Dissociative motor disorders
F44.5 Dissociative convulsions
F44.6 Dissociative anaesthesia and sensory loss
F44.7 Mixed dissociative [conversion] disorders
F44.8 Other dissociative [conversion] disorders
.80 Ganser's syndrome
.81 Multiple personality disorder
.82 Transient dissociative [conversion] disorders occurring in childhood and adolescence
.88 Other specified dissociative [conversion] disorders
F44.9 Dissociative [conversion] disorder, unspecified

F45 Somatoform disorders

F45.0 Somatization disorder
F45.1 Undifferentiated somatoform disorder
F45.2 Hypochondriacal disorder
F45.3 Somatoform autonomic dysfunction
.30 Heart and cardiovascular system
.31 Upper gastrointestinal tract
.32 Lower gastrointestinal tract
.33 Respiratory system
.34 Genitourinary system
.38 Other organ or system
F45.4 Persistent somatoform pain disorder
F45.8 Other somatoform disorders
F45.9 Somatoform disorder, unspecified

F48 Other neurotic disorders

F48.0 Neurasthenia
F48.1 Depersonalization – derealization syndrome
F48.8 Other specified neurotic disorders
F48.9 Neurotic disorder, unspecified

F50 – F59
Behavioural syndromes associated with physiological disturbances and physical factors

F50 Eating disorders
- F50.0 Anorexia nervosa
- F50.1 Atypical anorexia nervosa
- F50.2 Bulimia nervosa
- F50.3 Atypical bulimia nervosa
- F50.4 Overeating associated with other psychological disturbances
- F50.5 Vomiting associated with other psychological disturbances
- F50.8 Other eating disorders
- F50.9 Eating disorder, unspecified

F51 Nonorganic sleep disorders
- F51.0 Nonorganic insomnia
- F51.1 Nonorganic hypersomnia
- F51.2 Nonorganic disorder of the sleep-wake schedule
- F51.3 Sleepwalking [somnambulism]
- F51.4 Sleep terrors [night terrors]
- F51.5 Nightmares
- F51.8 Other nonorganic sleep disorders
- F51.9 Nonorganic sleep disorder, unspecified

F52 Sexual dysfunction, not caused by organic disorder or disease
- F52.0 Lack or loss of sexual desire
- F52.1 Sexual aversion and lack of sexual enjoyment
  - .10 Sexual aversion
  - .11 Lack of sexual enjoyment
- F52.2 Failure of genital response
- F52.3 Orgasmic dysfunction
- F52.4 Premature ejaculation
- F52.5 Nonorganic vaginismus
- F52.6 Nonorganic dyspareunia
- F52.7 Excessive sexual drive
- F52.8 Other sexual dysfunction, not caused by organic disorders or disease
- F52.9 Unspecified sexual dysfunction, not caused by organic disorder or disease

F53 Mental and behavioural disorders associated with the puerperium, not elsewhere classified

F53.0 Mild mental and behavioural disorders associated with the puerperium, not elsewhere classified

F53.1 Severe mental and behavioural disorders associated with the puerperium, not elsewhere classified

F53.8 Other mental and behavioural disorders associated with the puerperium, not elsewhere classified

F53.9 Puerperal mental disorder, unspecified

F54 Psychological and behavioural factors associated with disorders or diseases classified elsewhere

F55 Abuse of non-dependence-producing substances

F55.0 Antidepressants

F55.1 Laxatives

F55.2 Analgesics

F55.3 Antacids

F55.4 Vitamins

F55.5 Steroids or hormones

F55.6 Specific herbal or folk remedies

F55.8 Other substances that do not produce dependence

F55.9 Unspecified

F59 Unspecified behavioural syndromes associated with physiological disturbances and physical factors

F60 – F69
Disorders of adult personality and behaviour

F60 Specific personality disorders
- F60.0 Paranoid personality disorder
- F60.1 Schizoid personality disorder
- F60.2 Dissocial personality disorder
- F60.3 Emotionally unstable personality disorder
  - .30 Impulsive type
  - .31 Borderline type
- F60.4 Histrionic personality disorder
- F60.5 Anankastic personality disorder
- F60.6 Anxious [avoidant] personality disorder
- F60.7 Dependent personality disorder
- F60.8 Other specific personality disorders
- F60.9 Personality disorder, unspecified

F61 Mixed and other personality disorders
- F61.0 Mixed personality disorders
- F61.1 Troublesome personality changes

F62 Enduring personality changes, not attributable to brain damage and disease
- F62.0 Enduring personality change after catastrophic experience
- F62.1 Enduring personality change after psychiatric illness
- F62.8 Other enduring personality changes
- F62.9 Enduring personality change, unspecified

F63 Habit and impulse disorders
- F63.0 Pathological gambling
- F63.1 Pathological fire-setting [pyromania]
- F63.2 Pathological stealing [kleptomania]
- F63.3 Trichotillomania
- F63.8 Other habit and impulse disorders
- F63.9 Habit and impulse disorder, unspecified

F64 Gender identity disorders
- F64.0 Transsexualism
- F64.1 Dual-role transvestism
- F64.2 Gender identity disorder of childhood

F64.8 Other gender identity disorders
F64.9 Gender identity disorder, unspecified

F65 Disorders of sexual preference
F65.0 Fetishism
F65.1 Fetishistic transvestism
F65.2 Exhibitionism
F65.3 Voyeurism
F65.4 Paedophilia
F65.5 Sadomasochism
F65.6 Multiple disorders of sexual preference
F65.8 Other disorders of sexual preference
F65.9 Disorder of sexual preference, unspecified

F66 Psychological and behavioural disorders associated with sexual development and orientation
F66.0 Sexual maturation disorder
F66.1 Egodystonic sexual orientation
F66.2 Sexual relationship disorder
F66.8 Other psychosexual development disorders
F66.9 Psychosexual development disorder, unspecified

A fifth character may be used to indicate association with:
.*x*0 Heterosexuality
.*x*1 Homosexuality
.*x*2 Bisexuality
.*x*8 Other, including prepubertal

F68 Other disorders of adult personality and behaviour
F68.0 Elaboration of physical symptoms for psychological reasons
F68.1 Intentional production or feigning of symptoms or disabilities, either physical or psychological [factitious disorder]
F68.8 Other specified disorders of adult personality and behaviour

F69 Unspecified disorder of adult personality and behaviour

F70 – F79
Mental retardation

F70 Mild mental retardation

F71 Moderate mental retardation

F72 Severe mental retardation

F73 Profound mental retardation

F78 Other mental retardation

F79 Unspecified mental retardation

A fourth character may be used to specify the extent of associated behaviowal impairment:

F7*x*.0 No, or minimal, impairment of behaviour
F7*x*.1 Significant impairment of behaviour requiring attention or treatment
F7*x*.8 Other impairments of behaviour
F7*x*.9 Without mention of impairment of behaviour

F80 – F89
Disorders of psychological development

F80 Specific developmental disorders of speech and language
- F80.0 Specific speech articulation disorder
- F80.1 Expressive language disorder
- F80.2 Receptive language disorder
- F80.3 Acquired aphasia with epilepsy [Landau – Kleffner syndrome]
- F80.8 Other developmental disorders of speech and language
- F80.9 Developmental disorder of speech and language, unspecified

F81 Specific developmental disorders of scholastic skills
- F81.0 Specific reading disorder
- F81.1 Specific spelling disorder
- F81.2 Specific disorder of arithmetical skills
- F81.3 Mixed disorder of scholastic skills
- F81.8 Other developmental disorders of scholastic skills
- F81.9 Developmental disorder of scholastic skills, unspecified

F82 Specific developmental disorder of motor function

F83 Mixed specific developmental disorders

F84 Pervasive developmental disorders
- F84.0 Childhood autism
- F84.1 Atypical autism
- F84.2 Rett's syndrome
- F84.3 Other childhood disintegrative disorder
- F84.4 Overactive disorder associated with mental retardation and stereotyped movements
- F84.5 Asperger's syndrome
- F84.8 Other pervasive developmental disorders
- F84.9 Pervasive developmental disorder, unspecified

F88 Other disorders of psychological development

F89 Unspecified disorder of psychological development

F90 – F98
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence

F90 Hyperkinetic disorders
- F90.0 Disturbance of activity and attention
- F90.1 Hyperkinetic conduct disorder
- F90.8 Other hyperkinetic disorders
- F90.9 Hyperkinetic disorder, unspecified

F91 Conduct disorders
- F91.0 Conduct disorder confined to the family context
- F91.1 Unsocialized conduct disorder
- F91.2 Socialized conduct disorder
- F91.3 Oppositional defiant disorder
- F91.8 Other conduct disorders
- F91.9 Conduct disorder, unspecified

F92 Mixed disorders of conduct and emotions
- F92.0 Depressive conduct disorder
- F92.8 Other mixed disorders of conduct and emotions
- F92.9 Mixed disorder of conduct and emotions, unspecified

F93 Emotional disorders with onset specific to childhood
- F93.0 Separation anxiety disorder of childhood
- F93.1 Phobic anxiety disorder of childhood
- F93.2 Social anxiety disorder of childhood
- F93.3 Sibling rivalry disorder
- F93.8 Other childhood emotional disorders
- F93.9 Childhood emotional disorder, unspecified

F94 Disorders of social functioning with onset specific to childhood and adolescence
- F94.0 Elective mutism
- F94.1 Reactive attachment disorder of childhood
- F94.2 Disinhibited attachment disorder of childhood
- F94.8 Other childhood disorders of social functioning
- F94.9 Childhood disorders of social functioning, unspecified

F95 Tic disorders

F95.0 Transient tic disorder
F95.1 Chronic motor or vocal tic disorder
F95.2 Combined vocal and multiple motor tic disorder [de la Tourette's syndrome]
F95.8 Other tic disorders
F95.9 Tic disorder, unspecified

F98 Other behavioural and emotional disorders with onset usually occurring in childhood and adolescence

F98.0 Nonorganic enuresis
F98.1 Nonorganic encopresis
F98.2 Feeding disorder of infancy and childhood
F98.3 Pica of infancy and childhood
F98.4 Stereotyped movement disorders
F98.5 Stuttering [stammering]
F98.6 Cluttering
F98.8 Other specified behavioural and emotional disorders with onset usually occurring in childhood and adolescence
F98.9 Unspecified behavioural and emotional disorders with onset usually occurring in childhood and adolescence

F99
Unspecified mental disorder

F99 Mental disorder, not otherwise specified