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IMPULSE CONTROL DISORDERS NOT ELSEWHERE CLASSIFIED

1. Introduction

The DSM-IV diagnostic category called 'Impulse Control Disorders Not Elsewhere Classified' is a 'residual' diagnostic category, even though there is no other distinct group of disorders in DSM-IV classified as impulse disorders. In this category are included intermittent explosive disorder, kleptomania, pyromania, pathological gambling, trichotillomania, and impulse control disorder not otherwise specified (ICDNOS).

2. Common Features of Impulse Disorders

The common features of all these impulse disorders are as follows:

1. Failure to resist an impulse, drive, or temptation to perform some act that is harmful to the person or others
2. An increasing sense of tension or arousal before committing the act
3. A sense of pleasure, gratification, or release at the time of committing the act, or shortly thereafter

It was in the nineteenth century, Pinel and Esquirol introduced the concept of 'instinctive impulse' and the term 'instinctive monomania.' The original monomanias included alcoholism, fire setting, and homicide. Kleptomania, a disorder first described by Marc in 1838, was later added to the monomanias by Mathey. Many changes in the nomenclature of monomanias have occurred since the nineteenth century. Kleptomania, pyromania, pathological gambling, and trichotillomania were not listed as

mental disorders in either DSM-I or DSM-II. It was in DSM-III (1980) that kleptomania, pyromania, and pathological gambling were all added along with two new disorders, intermittent explosive disorder and isolated explosive disorder. Seven years later, in DSM-III-R, isolated explosive disorder was deleted because of the high potential for misdiagnosis based on a single episode of aggressive behaviour. Intermittent explosive disorder was retained, even though serious questions have been raised about its validity; and trichotillomania was added.

There is a relationship between low cerebrospinal fluid (CSF) 5-hydroxyindoleacetic acid (5-HIAA; a metabolite of serotonin) and impulsivity, as well as between low CSF 5-HIAA and recidivist violent crimes. Besides, antidepressants, especially those with the ability to block the reuptake of serotonin in a selective fashion, are often effective in the treatment of these disorders. This has stimulated discussion concerning whether the impulse control disorders are 'affective spectrum disorders,' are related to obsessive-compulsive disorder (OCD), or are a convergence of mood, impulse, and compulsive disorders.¹

3. Intermittent Explosive Disorder

(DSM-IV Code: 312.34 & ICD-10 Code: F63.8)

The classification of individuals who exhibit episodic violent behaviour has undergone considerable change in history. DSM-I described an aggressive type of person who manifested 'persistent reaction to frustration with irritability, temper tantrums and destructive behaviour' as a 'Passive Aggressive Personality.' Menninger and Mayman introduced the term 'episodic dyscontrol' in 1956 and Menninger subdivided dyscontrol into three distinct types in 1963: 1. chronic, repetitive aggressive behaviour (antisocial personality); 2. episodic, impulsive violence (homicidal assaultiveness, shell shock, hypomania, and delirious syndromes); and 3. disorganized episodic violence (seizure disorders and brain-damage syndromes).

DSM-II introduced a new diagnostic category: 'Explosive Personality (Epileptoid Personality Disorder).' These patients are generally considered excitable, aggressive and over-responsive to environmental pressures. In 1970, Mark and Ervin described a 'dyscontrol syndrome,' characterized by 1. a history of physical

assault, especially spouse and child abuse; 2. the symptom of pathological intoxication; 3. a history of impulsive sexual behaviour, at times including sexual assaults; and 4. a history of many traffic violations and serious automobile accidents. This syndrome was thought to represent behavioural manifestations of disordered brain physiology, particularly in the limbic system. In 1970, Monroe reinforced the idea that subtle brain dysfunction could cause episodic violent behaviour and also used the term ‘episodic dyscontrol.’

The diagnostic term ‘intermittent explosive disorder’ first appeared in the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM by World Health Organization in 1979). Then intermittent explosive disorder with different diagnostic criteria appeared in DSM-III, and then in DSM-III-R, but with some reservation. Despite reservations, intermittent explosive disorder was retained in DSM-IV.²

1) Diagnostic Criteria³

Diagnostic Criteria for Intermittent Explosive Disorder

- A. Several discrete episodes of failure to resist aggressive impulses that result in serious assaultive acts or destruction of property.
- B. The degree of aggressiveness expressed during the episodes is grossly out of proportion to any precipitating psychological stressors.
- C. The aggressive episodes are not better accounted for by another mental disorder (e.g., Antisocial Personality Disorder, Borderline Personality Disorder, a Psychotic Disorder, a Manic Episode, Conduct Disorder, or Attention-Deficit/Hyperactivity Disorder) and are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., head trauma, Alzheimer’s disease).

2) Differential Diagnosis⁴

In Common with	Characteristics Shared	Exclusively characteristic of Intermittent Explosive Disorder or of the disorder with which it is compared or difference between the two disorders

Delirium	Aggressive behaviour	If it occurs exclusively during the course of a delirium, then it is due to delirium
Dementia	Aggressive behaviour	If it happens as part of a dementia, then it is not an intermittent explosive disorder
Personality Change Due to a General Medical Condition, Aggressive Type	Aggressive episodes	Here due to a general medical condition
Substance Intoxication or Substance Withdrawal	Aggressive outbursts	Here due to a substance
Oppositional Defiant Disorder, Conduct Disorder, Antisocial Personality Disorder, Borderline Personality Disorder, a Manic Episode, and Schizophrenia	Aggressive or erratic behaviour	Here as a symptom of the above mentioned disorders
Purposeful behaviour	Aggressive act	Here, motivation is present.

3) Aetiology

Monroe (1970) originally noted that episodic violent behaviour occurs in patients because of excessive neuronal discharges or purely motivational causes. He described a continuum between

'faulty learning' and 'faulty equipment.' Patients with episodic violent behaviour frequently have neurological abnormalities. There is also an evidence of abnormalities in noradrenergic and serotonergic function. Further research is needed into the relationship between biological factors and behavioural disorders.⁵

4) Treatment/Course and Prognosis

Episodic violent behaviour is quite common in the general population, but strictly diagnosed intermittent explosive disorder is quite rare. The development of a treatment plan for a patient who has long-standing, episodic aggressive behaviour is complicated and involves the assessment and amelioration of multiple factors, such as temperament, sensory cues, neuroanatomy, neurochemistry, neuroendocrine function, stress, and social condition. Right now, we do not have any drug specifically for the treatment of aggression. All the same numerous pharmacological agents and long-term psychotherapy are effective in diminishing violent behaviour in some individuals. The treatment of a patient who becomes acutely violent, regardless of the underlying aetiology, commonly involves physical restraint, seclusion, and sedation.⁶

4. Kleptomania

(DSM-IV Code: 312.32 & ICD-10 Code: F63.2)

There is no systematic research on kleptomania to establish or refute the validity of the existing DSM criteria. The only modification in these criteria from those in DSM-III-R is the addition of mania as an exclusionary diagnosis. Shoplifters and thieves are different from persons with kleptomania in that the shoplifters steal for financial gain or for personal use.

1) Diagnostic Criteria⁷

Diagnostic Criteria for Kleptomania

- A. Recurrent failure to resist impulses to steal objects that are not needed for personal use or for their monetary value.
- B. Increasing sense of tension immediately before committing the theft.
- C. Pleasure, gratification, or relief at the time of committing the theft.

- D. The stealing is not committed to express anger or vengeance and is not in response to a delusion or a hallucination.
- E. The stealing is not better accounted for by Conduct Disorder, a Manic Episode, or Antisocial Personality Disorder.

2) Differential Diagnosis⁸

In Common with	Characteristics Shared	Exclusively characteristic of Kleptomania or of the disorder with which it is compared or difference between the two disorders
Ordinary acts of theft or shoplifting (whether planned or impulsive)	Stealing	Here it is motivated by the usefulness of the object or its monetary worth
Antisocial Personality Disorder and Conduct Disorder	Stealing	Here due to the general pattern of antisocial behaviour
Manic Episode (intentional or inadvertent)	Stealing	Here due to the manic episode
Schizophrenia	Stealing	Here in response to delusions or hallucinations
Dementia	Stealing	Here due to dementia

3) Aetiology

There are many hypotheses about the cause of kleptomania but with little agreement. The individuals seem to be dominated by the Oedipus complex. They seem to present a tremendous sexual energy which may be released, as kinetic energy, temporarily, in kleptomaniac deeds. The unconscious formula for kleptomania seems to be 'If you don't give it to me, I'll take it.' The individuals may like to give themselves a treat, or because of the lack of love,

or to punish others by punishing themselves, or for hysterical secondary gain or to keep up appearances.⁹

4) Treatment/Course and Prognosis

No systematic study has been done. Available information on treatment is limited to a number of case reports that use a broad range of therapeutic interventions and all of them with little success. The psychoanalytic view suggests that kleptomania is a symptom of an underlying conflict. Some have used insight-oriented and supportive psychotherapy. Some have used behaviour therapy with the use of covert sensitisation in the treatment. Some have used desensitisation to reduce the anxiety that had prompted the stealing behaviour. There are some who have used somatic therapies like electroconvulsive therapy (ECT) alone and others in combination with antidepressants.¹⁰

5. Pyromania

(DSM-IV Code: 312.33 & ICD-10 Code: F63.1)

Pyromania has been described as 'motiveless arson.' This description would imply that if no motivation can be determined, pyromania exists. Individuals with pyromania may make considerable advanced preparation before setting the fire, be an avid fire watcher, set off false fire alarms, be interested in fire-fighting paraphernalia, and even seek work as a firefighter. The peak incidence of fire setting occurs at age 17. When we analyse the motivation of fire setting in researches, we discover that 39% is by pyromania, 23% due to revenge/jealous resentment, 13% due to psychosis, 9% due to volunteer firefighters or fire 'buffs,' 7% due to tramps/migrant workers, 6% due to the desire to be 'would-be-heroes,' and 3% is due to cases associated with burglary. In DSM-III, a number of features are associated with pyromania. These include alcohol intoxication, psychosexual dysfunction, lower-than-average IQ, chronic personal frustrations, resentment of authority figures, and the occurrence of sexual arousal secondary to fires. It is not yet clear if these features are associated with pyromania per se or represent a general characteristic of arsonists/fire setters. Neither DSM-III-R nor DSM-IV lists any features associated with pyromania.

1) Diagnostic Criteria¹¹

Diagnostic Criteria for Pyromania

- A. Deliberate and purposeful fire setting on more than one occasion.
- B. Tension or affective arousal before the act.
- C. Fascination with, interest in, curiosity about, or attraction to fire and its situational contexts (e.g., paraphernalia, uses, consequences).
- D. Pleasure, gratification, or relief when setting fires, or when witnessing or participating in their aftermath.
- E. The fire setting is not done for monetary gain, as an expression of sociopolitical ideology, to conceal criminal activity, to express anger or vengeance, to improve one's living circumstances, in response to a delusion or hallucination, or as a result of impaired judgment (e.g., in dementia, Mental Retardation, Substance Intoxication).
- F. The fire setting is not better accounted for by Conduct Disorder, a Manic Episode, or Antisocial Personality Disorder.

2) Differential Diagnosis¹²

In Common with	Characteristics Shared	Exclusively characteristic of pyromania or of the disorder with which it is compared or difference between the two disorders
Profit, sabotage, or revenge, to conceal a crime, to make a political statement, to attract attention or recognition	Fire setting	Here in all these it is a question of intentional fire setting
Developmental experimentation in childhood	Fire setting	Here it occurs as part of developmental experimentation for a child

Conduct Disorder, a Manic Episode, or Antisocial Personality Disorder, Schizophrenia – a delusion or a hallucination	Fire setting	Here it occurs as part of their symptoms
Dementia, Mental Retardation, or Substance Intoxication	Fire setting	Here fire setting results from impaired judgement

3) Aetiology¹³

In literature fire symbolizes a wide variety of things from the 'fires of Hell' to 'fiery passion.' In the psychoanalytic interpretations of pyromania, the diverse symbolism of fire is represented. It is believed that awakening of the ungratified sexuality impels individuals to seek a symbolic solution to their conflict between instinct and reality. Sigmund Freud considered fire setting a masturbatory equivalent with homosexual features. Freud further said that the warmth that is radiated by fire calls up the same sensation that accompanies a state of sexual excitation, and the shape and movement of a flame suggest a phallus in activity. Fenichel said that pyromania is a specific form of urethral-erotic fixation and emphasized the sadistic and destructive symbolism of fire. Some researchers have noted that poor impulse control in criminal offenders is associated with low levels of certain CSF monoamine metabolites and with a hypoglycemic tendency. In a few cases the individuals had the lowest blood glucose nadirs. It is also observed that impulse fire setters who are violent offenders are often alcoholic and have a father who is alcoholic.

4) Treatment

Treatment for fire setters has been traditionally problematic due to their frequent refusal to take responsibility for the act, the

use of denial, the existence of alcoholism, and the lack of insight. Many psychotherapist use psychoanalytic approach. Many behavioural researchers use aversive therapy and some others use positive reinforcement with threats of punishment, stimulus satiation, and operant structured fantasies with positive reinforcement. The pyromanic impulse is episodic and often self-limited and frequently appears during a developmental or situational crisis. Fire setting associated with mental retardation, alcoholism, or a ritualistic pattern indicates a poor prognosis. Of course, a better prognosis exists if the patient can verbalize and work through his/her frustrations in therapy.¹⁴

6. Pathological Gambling

(DSM-IV Code: 312.31 & ICD-10 Code: F63.0)

Gambling is now legal in many countries; so one will naturally meet individuals with the problem of pathological gambling. The diagnostic criteria for pathological gambling in DSM-IV incorporate features from the criteria found in DSM-III and DSM-III-R. In fact, the criteria for pathological gambling are similar to the criteria for psychoactive substance abuse disorders. It was Freud who first recognized this similarity and so he categorized pathological gambling as an addiction along with alcoholism and drug dependence. A compulsive gambler is a risk taker who fails to learn from his/her gambling misadventures. The compulsive gambler is often described as fiercely competitive, highly independent, individualistic, overconfident, and profoundly optimistic. He/she resents the intrusion of authority figures into his/her life, just as he/she resented his/her parents' intrusions during his/her childhood. The compulsive gambler is likely to marry and provide reasonably well for the family before the gambling losses precipitate a financial crisis. The person is extremely knowledgeable about the technical aspects of gambling; his/skills are impressive, particularly when the person is winning. It is when the person 'chases' the losses by larger and larger wagers that the person disregards his/her technical knowledge. It is noted that compulsive gambler rarely seeks psychiatric help on his/her own but is generally forced into consultation.

The pathological gambler's and the alcoholic's premorbid personality seem similar. The alcoholic individual does not have a premorbid oral, passive, dependent personality. Rather, when the person with alcoholism drinks excessively and continuously, these traits emerge as a secondary rather than a primary phenomenon. The same seems to be true of the pathological gambler.

1) Diagnostic Criteria¹⁵

Diagnostic Criteria for Pathological Gambling

- A. Persistent and recurrent maladaptive gambling behaviour as indicated by five (or more) of the following:
- (1) is preoccupied with gambling (e.g., preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)
 - (2) needs to gamble with increasing amounts of money in order to achieve the desired excitement
 - (3) has repeated unsuccessful efforts to control, cut back, or stop gambling
 - (4) is restless or irritable when attempting to cut down or stop gambling
 - (5) gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)
 - (6) after losing money in gambling, often returns another day to get even ('chasing' one's losses)
 - (7) lies to family members, therapist, or others to conceal the extent of involvement with gambling
 - (8) has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling
 - (9) has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling
 - (10) relies on others to provide money to relieve a desperate financial situation caused by gambling
- B. The gambling behaviour is not better accounted for by a Manic Episode

2) Clinical Features¹⁶

Clinical Features of Pathological Gambling

1. progressive gambling, 2. development of tolerance, 3. symptoms on discontinuation (withdrawal), 4. gambling as escape from dysphoria, 5. chasing of losses, 6. lies/deception, 7. illegal acts, 8. family/job disruption, 9. financial bailout and 10. inability to stop (loss of control)

3) Differential Diagnosis¹⁷

In Common with	Characteristics Shared	Exclusively characteristic of Pathological Gambling or of the disorder with which it is compared or difference between the two disorders
Social Gambling	Gambling	Here it occurs with friends or colleagues and lasts for a limited period of time, with predetermined acceptable losses
Professional Gambling	Gambling	Here risks are limited and discipline is central
Manic Episode	Gambling	Here it is part of the manic episode and otherwise it does not occur
Antisocial Personality Disorder	Gambling	Here it occurs as part of antisocial personality disorder and not as an impulse-control disorder

The individual is progressively preoccupied with gambling; spends more time gambling; needs higher bets to experience excitement; experiences withdrawal symptoms if gambling is abruptly discontinued; may use gambling to forget or avoid dysphoric mood states; wagers larger and larger amounts to win back losses (called 'chasing'); creates family and job disruption by telling lies to sustain gambling and performing illegal acts to pay debts; requests and often receives financial help (a bailout) from family and/or friends to pay off debts and to sustain gambling; and attempts unsuccessfully to cut back on or stop gambling. Research has found that pathological gamblers wager from 14% to 45% of their monthly income.

4) Aetiology

A number of theories have been proposed to explain the origin of pathological gambling, including unconscious motivations, behavioural anomalies, the presence of an affective disorder, addiction, and biological abnormalities. The various views are as follows: Pathological gambling might be an obsessive-compulsive spectrum disorder. It is an addictive disease comparable to alcoholism. This impulsivity and bipolarity (or mania) are related. None of these views taken singly will explain the heterogeneous nature of this patient population.

Bergler (1957) believed that the compulsive gambler's illogical, senseless certainty that he/she will win stems from a childhood sense of omnipotence. The individual's unconscious aggression against the reality principle leads to an unconscious need for punishment. The punishment, achieved through losing, becomes essential for psychic equilibrium. H.R. Greenberg (1980) reviewed the psychodynamic formulations of the analogies between gambling, childhood play, and masturbation. He classified the compulsive gamblers as compulsive neurotic individuals with latent homosexual tendencies and a variant of 'Schicksal' (fate) neurosis in which the person surrenders responsibility for his/her actions to an omnipotent force, such as Lady Luck.

Platelet monoamine oxidase (MAO) activity is a peripheral index of serotonin function; low platelet MAO activity has been linked to impulsivity. Pathological gamblers have been found to have low platelet MAO activity. Many researches have reported an extremely high incidence of affective disorders among pathological gamblers. Gambling may also be an antidepressant, protecting the gambler from dysphoria and depression. The analogy can be drawn between the manic and depressive cycles of a patient with bipolar disorder and the frenetic, high-energy mood of a winning gambler versus the desperate low of the losing gambler.

There are also similarities between substance abuse, particularly alcoholism, and compulsive gambling. In both disorders, dependencies are developed that exclude basic human needs such as sleep, food, and sex. The insidious downward trajectory of both disorders leads to loss of family, friends, and position. It has been noted that compulsive gamblers who abruptly

stop gambling during a hospital admission are frequently tremulous and experience headaches, abdominal pain, diarrhoea, nightmares, and cold sweats. The course of recovering substance abuser and that of a compulsive gambler are very much alike in that relapses are common and occur at times of increased stress. Abstinence is thought by many to be an essential part in the recovery from both disorders. The mainstay of treatment, Gamblers Anonymous, is patterned after Alcoholics Anonymous.¹⁸

5) Treatment

There are a number of treatments meant for compulsive gambling like psychoanalysis, behaviour therapy, cognitive therapy, medications, and ECT. The high incidence of major affective disorders among pathological gamblers leads one to assume a relationship between these disorders. In some gamblers the affective disorder may promote the gambling, whereas in other gamblers it seems likely that the depletion of resources (e.g, emotional, family, friends, financial) is responsible for the affective state of the gambler when one enters treatment.

Behavioural treatments, particularly aversive therapy, have been used to treat compulsive gamblers but with disappointing results. Now there is a trend away from the use of single limited procedures such as aversion therapy towards a multimodal approach. Psychoanalytic treatment seemed effective when the gambler is admitted to an inpatient psychiatric treatment centre, particularly when there is a risk of suicide, emotional decompensation, or exhaustion. The initial assessment must include the compulsive gambler's areas of high risk: marital problems, large debts, demands or threats from creditors, loss of employment, legal problems, and isolation from friends and relatives. The treatment plan is then designed to treat problems identified. Besides these, group therapy with other compulsive gamblers and involvement of the compulsive gambler with Gamblers Anonymous are suggested.

There are supportive groups like Gamblers Anonymous. Its sister groups Gram-Anon (for families and spouses of compulsive gamblers) and Gram-a-Teen (for adolescent children of compulsive gamblers) are also important resources for treatment. The only requirement for membership in Gamblers Anonymous is an

expressed desire to stop gambling. Unfortunately many of the treatments meet with failures.¹⁹

7. Trichotillomania

(DSM-IV Code: 312.39 & ICD-10 Code: F63.3)

In 1889, Hallopeau created the term 'trichotillomania' to describe a compulsion to pull out one's own hair. Trichotillomania was not listed in DSM-III, but was added to DSM-III-R because it fulfils the general criteria for the impulse control disorders. A significant number of individuals do not fulfil the requirement of increased tension immediately before hair pulling and gratification or relief after pulling the hair.

Trichotillomania produces irregular, nonscarring focal patches of hair loss that are linear, rectangular, or oval. Hair loss usually occurs in the scalp region but can involve eyebrows, eyelashes, or pubic hair. These areas of hair loss are more likely to be found on the opposite side of the body from the dominant hand. Within the areas of hair loss, broken hairs of varying lengths are found, and the scalp may have a slight brownish discoloration secondary to rubbing the area. There are two clinical findings that can help one with the diagnosis. In trichotillomania, the patient should not have changes in fingernails, or toenails (except possibly signs of nail biting) usually associated with dermatological conditions. Second, hair regrowth follows the application of collodion to the area of hair loss for 1 week.²⁰

1) Diagnostic Criteria²¹

Diagnostic Criteria for Trichotillomania

- A. Recurrent pulling out of one's hair resulting in noticeable hair loss.
- B. An increasing sense of tension immediately before pulling out the hair or when attempting to resist the behaviour.
- C. Pleasure, gratification, or relief when pulling out the hair.
- D. The disturbance is not better accounted for by another mental disorder and is not due to a general medical condition (e.g., a dermatological condition).
- E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

2) Differential Diagnosis²²

In Common with	Characteristics Shared	Exclusively characteristic of Trichotillomania or of the disorder with which it is compared or difference between the two disorders
Other causes of alopecia (e.g., alopecia areata, male-pattern baldness, chronic discoid lupus erythematosus, lichen planopilaris, folliculitis decalvans, pseudopelade, and alopecia mucinosa)	Hair loss	In these cases there is no hair pulling
Another mental disorder (e.g., in response to a delusion or a hallucination in Schizophrenia)	Hair loss	Here it is part of the mental disorder
Obsessive-Compulsive Disorder	Hair loss	Here the repetitive behaviours are performed in response to an obsession
Stereotypic Movement Disorder	Hair loss	In trichotillomania, the repetitive behaviour is limited to hair pulling only

3) Aetiology

According to psychoanalysis, hair may have many possible symbolic meanings. Hair can represent beauty, virility, sexual conflicts, physical prowess, and sexuality. Haircutting or plucking can signify castration. When trichotillomania occurs in a child, the hair pulling is a manifestation of mild frustration and is analogous to nail biting. In children it usually develops at a time of psychosocial stress, such as when there is a disturbed mother-child

relationship, hospitalisation and the like. Hair pulling can develop into a habit even though the stressor(s) may no longer be present.

Trichotillomania in adolescents and adults may indicate a more serious psychological problem and require psychiatric help. Some authors believe that trichotillomania can be present as a major symptom in OCD, mental retardation, schizophrenia, borderline personality disorder, and depression and so they question the validity of trichotillomania as a unique diagnostic entity.²³

4) Treatment

There is no specific treatment for trichotillomania; but psychoanalytic, behavioural, or pharmacological treatments may potentially decrease hair pulling. Most cases of trichotillomania in young children resolve spontaneously. It might represent a transient behaviour in response to a psychosocial stressor, or it may represent a habit, without the presence of an obvious precipitant. If hair loss persists, psychiatric consultation needs to be had and inquiry into areas of parent-child relationships or other areas of potentially conflict may illuminate the problem.²⁴

8. Impulse-Control Disorder Not Otherwise Specified (ICDNOS)

(DSM-IV Code: 312.30 & ICD-10 Code: F63.9)

This category is for disorders of impulse control that do not meet the criteria for any specific impulse-control disorder or for another mental disorder having features involving impulse control described elsewhere (e.g., substance dependence, a paraphilia). The DSM-IV criteria for ICDNOS are essentially unchanged from those for DSM-III-R. The impulse control disorders committee of the DSM-IV Task Force reviewed diagnoses such as amok, pathological spending, pathological shopping, and self-mutilation disorder for listings as examples of impulse control disorders in DSM-IV. But they dropped the idea since there is no sufficient scientific data to support including any of these conditions as examples of ICDNOS diagnosis. Since the publication of DSM-IV, the terms 'compulsive buying,' and 'uncontrolled buying' have appeared in the literature. Diagnostic criteria for these disorders have been proposed in the future editions of DSM.²⁵

9. Conclusion

The disorders that are considered impulse control disorders not elsewhere classified represent a diverse array, including intermittent explosive disorder, kleptomania, pathological gambling, pyromania, trichotillomania, and impulse control disorder not otherwise specified. The disorders in this diagnostic category, when diagnosed using DSM criteria, are rare, with the exception of pathological gambling. The limited number of available cases hampers research and gathering of information on the epidemiology, treatment, course, and prognosis of these disorders, as well as refinement of diagnostic criteria. Promising research is underway, especially on the relationship between serotonin, selective serotonin reuptake inhibitors, and impulsivity. This research may help clarify this diagnosis category, as well as answer questions regarding whether the impulse control disorders not elsewhere classified are part of an affective spectrum that includes disorders such as OCD, eating disorders, and major mood disorders.²⁶

7

SOMATOFORM DISORDERS

1. Introduction

For the first time the somatoform disorders were introduced in DSM-III. The class was created to facilitate the differential diagnosis of disorders characterized primarily by 'physical symptoms suggesting physical disorder (hence, 'somatoform') for which there are no demonstrable organic findings or known physiological mechanisms; and for which there is positive evidence, or a strong presumption, that the symptoms are linked to psychological factors or conflicts. Late with minor modifications these disorders were maintained in DSM-III-R. Unlike factitious disorders and malingering, somatoform disorder symptoms are not under voluntary control. The stipulation in DSM-IV that symptoms are not fully accounted for by known physiological mechanisms distinguishes somatoform disorders from disorders formerly designated as psychophysiological disorders, some of which are included in DSM-IV under 'Psychological Factors Affecting Medical Condition.' The grouping of the symptoms in DSM-IV is based on the clinical utility of a shared diagnostic concern rather than shared aetiology or mechanism.

The traditionally used concept of 'psychosomatic illness' is different from somatoform disorders. In psychosomatic illnesses, structural or physiological changes do result from psychological factors. But in the somatoform disorders, such changes are generally not evident. Historically, many overlapping, conflicting, and even contradictory diagnostic conventions have been employed to identify and distinguish somatoform disorders. In ICD-9, disorders corresponding to DSM-IV somatoform disorders were included under 'Neurotic Disorders.' The ICD-10 somatoform category is conceptualised in a manner similar to what was introduced with DSM-III, emphasizing as the main feature 'physical symptoms' that are not adequately explained by physical disorders. Besides, ICD-10 includes a medical utilization specification requiring a 'repeated

presentation' of symptoms, 'persistent requests for medical investigations,' and resistance to consideration of 'psychological causation' despite 'repeated negative findings and reassurances by doctors that the symptoms have no physical basis.' In spite of the inconsistencies between DSM-IV and ICD-10, sufficient overlap exists to permit generalizations regarding specific somatoform disorders.

In this chapter are included seven somatoform disorders, namely: 1. Somatization Disorder: Historically it is referred to as hysteria or Briquet's syndrome. It is a polysymptomatic disorder that begins before age 30 years, extends over a period of years, and is characterized by a combination of pain, gastrointestinal, sexual, and pseudoneurological symptoms. 2. Undifferentiated Somatoform Disorder: It is characterized by unexplained physical complaints, lasting at least 6 months that are below the threshold for diagnosis of Somatization Disorder. 3. Conversion Disorder: It involves unexplained symptoms or deficits affecting voluntary motor or sensory function that suggest a neurological or other general medical condition. Psychological factors are judged to be associated with the symptoms or deficits. 4. Pain Disorder: It is characterized by pain as the predominant focus of clinical attention. In addition, psychological factors are judged to have an important role in its onset, severity, exacerbation, or maintenance. 5. Hypochondriasis: It is the preoccupation with the fear of having, or the idea that one has, a serious disease based on the person's misinterpretation of bodily symptoms or bodily functions. 6. Body Dysmorphic Disorder: It is the preoccupation with an imagined or exaggerated defect in physical appearance. 7. Somatoform Disorder Not Otherwise Specified: It is included for coding disorders with somatoform symptoms that do not meet the criteria for any of the specific Somatoform Disorders.¹

2. Somatization Disorder

(DSM-IV Code: 300.81 & ICD-10 Code: F45.0)

The core features of somatization disorder are recurrent multiple physical complaints that are not fully explained by physical factors and that result in medical attention or significant impairment. It is supposed to be the most pervasive somatoform disorder. It is a polysymptomatic disorder affecting multiple body systems.

1) Diagnostic Criteria²

Diagnostic Criteria for Somatization Disorder

- A. A history of many physical complaints beginning before age 30 years that occur over a period of several years and result in treatment being sought or significant impairment in social, occupational, or other important areas of functioning.
- B. Each of the following criteria must have been met, with individual symptoms occurring at any time during the course of the disturbance:
- (1) four pain symptoms: a history of pain related to at least four different sites or functions (e.g., head, abdomen, back, joints, extremities, chest, rectum, during menstruation, during sexual intercourse, or during urination)
 - (2) two gastrointestinal symptoms: a history of at least two gastrointestinal symptoms other than pain (e.g., nausea, bloating, vomiting other than during pregnancy, diarrhoea, or intolerance of several different foods)
 - (3) one sexual symptom: a history of at least one sexual or reproductive symptoms other than pain (e.g., sexual indifference, erectile or ejaculatory dysfunction, irregular menses, excessive menstrual bleeding, vomiting throughout pregnancy)
 - (4) one pseudoneurological symptom: a history of at least one symptom or deficit suggesting a neurological condition not limited to pain (conversion symptoms such as impaired coordination or balance, paralysis or localized weakness, difficulty swallowing or lump in throat, aphonia, urinary retention, hallucinations, loss of touch or pain sensation, double vision, blindness, deafness, seizures; dissociative symptoms such as amnesia; or loss of consciousness other than fainting)
- C. Either (1) or (2):
- (1) after appropriate investigation, each of the symptoms in Criteria B cannot be fully explained by a known general medical condition or the direct effects of a substance (e.g., a drug of abuse, a medication)
 - (2) when there is a related general medical condition, the physical complaints or resulting social or occupational impairment are in excess of what would be expected from the history, physical examination, or laboratory findings
- D. The symptoms are not intentionally produced or feigned (as in Factitious Disorder or Malingering).

2) Differential Diagnosis³

In Common with	Characteristics Shared	Exclusively characteristic of Somatization or of the disorder with which it is compared or the difference between the two disorders
General Medical Conditions	Somatic complaints	For somatization three conditions are required: 1. involvement of multiple organ systems, 2. early onset and chronic course without development of physical signs or structural abnormalities, and 3. absence of laboratory abnormalities that would suggest general medical condition
Schizophrenia	Somatic Complaints	Here the symptoms are due to delusion unlike in somatization
Panic Disorder	Multiple somatic symptoms	Here the symptoms occur primarily during panic attacks
Generalized Anxiety Disorder	Multitude of physical complaints	Here the focus of anxiety and worry is not limited to the physical complaints
Depressive Disorders	Somatic complaints	Here symptoms are limited to episodes of depressed mood

3) History

The concept of somatization disorder is the end result of a long and inconsistent approach to a syndrome characterized by multiple unexplained physical complaints. Originally it was designated as 'hysteria.' This syndrome was first described at least 4,000 years ago, probably originating in Egypt. In the Egyptian medicine, it was believed that physical displacement of the uterus precipitated symptoms; and so the treatment consisted of attempting to attract the 'wandering womb' back to its proper site.

Freud gave a lot of attention to the concept of hysteria. In psychoanalysis, hysteria occupies an important place. Ego defence

mechanism of conversion was seen in hysteria. This mechanism was understood as the converting of 'psychic energy' into physical symptoms. It was Stekel (1943) who coined the term 'somatization,' which he regarded as similar to Freud's concept of conversion. Paul Briquet (1859) described a syndrome corresponding to somatization disorder as it is conceptualised today, describing hysteria as characterized by multiple dramatic and excessive medical complaints in the absence of demonstrable organic pathology. Feighner (1972) included hysteria as one of the 14 psychiatric disorders. According to Feighner, for hysteria, the criteria required a chronic or recurrent illness beginning before age 30 years that includes a dramatic, vague, or complicated medical history. The diagnosis required 25 'positive' medically unexplained symptoms from a list of 59 in 9 of 10 groups. In spite of its validity, this concept came into disuse because of the pejorative connotation of the term hysteria and the complexity of remembering the numerous symptoms divided into various groups not organized according to any obvious logic. Besides, hysteria was frequently confused with the dramatic and volatile hysterical personality. Therefore Guze (1970) suggested the more neutral Briquet's syndrome; in DSM-III, the syndrome was descriptively renamed somatization disorder. DSM-III, DSM-III-R, and DSM-IV criteria for somatization disorder have the same conceptual base as Briquet's syndrome and identify a similar population as that identified by the well-studied Feighner hysteria syndrome. But many considered both the DSM-III and DSM-III-R criteria too lengthy and complex for routine clinical use and therefore DSM-IV attempted to address this issue. Cloninger and Yutzy (1993) suggested a diagnostic strategy that simplified the criteria for somatization disorder and appeared usable in routine practice.⁴

4) Natural History

It is found that somatization disorder is unusual in children younger than 9 years. Usually the characteristic symptoms begin during adolescence, and the criteria will be satisfied by the mid-20s. It is a chronic illness with fluctuations in the frequency and diversity of symptoms and it can rarely remit totally. The most active symptomatic phase is usually early adulthood; with aging it does not lead to total remission. The most frequent and important complications are repeated surgical operations, drug dependence, marital separation or divorce, and suicide attempts.⁵

5) Aetiology

The aetiology of somatization disorder is unknown, but it is clearly a familial disorder. This disorder in women shares a common aetiology with antisocial personality disorder; whereas in men may be related more to anxiety disorders. Some are of the opinion that this disorder is more of a personality (Axis II) disorder than Axis I disorder, considering its early onset, nonremitting nature, and pervasiveness, which in some cases results in chronic dysfunctional states. Familial aggregation in somatization disorder could result from genetic factors, environmental influences, or both. Experimental neurophysiological testing indicates that individuals with somatization disorder demonstrate difficulty with information processing related to problems that require attention and memory. They seem to have bilateral, symmetrical patterns of frontal lobe dysfunction. They suffer more from dominant hemisphere impairment.⁶

6) Treatment

There appears to be no single superior treatment approach. Mostly primary care physicians can manage these patients, with consultation of a psychiatrist when needed. An eclectic approach comports well with this disorder. The eclectic approach consists of three principles: 1. establish a firm therapeutic alliance with the patient, 2. educate the patient regarding the manifestations of somatization disorder, and 3. provide consistent reassurance. Therapeutic alliance is important to acknowledge the patient's pain and suffering to communicate that the physician is caring, compassionate, and interested in providing help. Secondly, educate the patient on the diagnosis and describe the various facets of somatization disorder in a positive light. Tell the patient that he/she is suffering from a medically recognized illness and that the condition will not lead to chronic mental or physical, deterioration or death. Thirdly, there should be consistent reassurance. Usually patients think that the physician is not doing what he should and so they want to go 'doctor shopping.' Since patients frequently complain of anxiety and depressive symptoms, prescription medications for these complaints should be held to a minimum and carefully monitored.⁷

3. Undifferentiated Somatoform Disorder

(DSM-IV Code: 300.81 & ICD-10 Code: F45.1)

1) Diagnostic Criteria⁸

Diagnostic Criteria for Undifferentiated Somatoform Disorder

- A. One or more physical complaints (e.g., fatigue, loss of appetite, gastrointestinal or urinary complaints).
- B. Either (1) or (2):
 - (1) after appropriate investigation, the symptoms cannot be fully explained by a known general medical condition or the direct effects of a substance (e.g., a drug of abuse, a medication)
 - (2) when there is a related general medical condition, the physical complaints or resulting social or occupational impairment is in excess of what would be expected from the history, physical examination, or laboratory findings
- C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The duration of the disturbance is at least 6 months.
- E. The disturbance is not better accounted for by another mental disorder (e.g., another Somatoform Disorder, Sexual Dysfunction, Mood Disorder, Anxiety Disorder, Sleep Disorder, or Psychotic Disorder).
- F. The symptom is not intentionally produced or feigned (as in Factitious Disorder or Malingering).

2) Differential Diagnosis⁹

In Common with	Characteristics Shared	Exclusively characteristic of Undifferentiated Somatoform Disorder or of the disorder with which it is compared, or the difference between the two disorders
Somatization Disorder	Physical symptoms	Here a multiplicity of symptoms of several years' duration, and an onset before age 30 years are required

Major Depressive Disorder, Anxiety Disorders & Adjustment Disorder	Unexplained physical symptoms	Here the symptoms are due to the mental disorders
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3) History

This category of somatoform disorder was introduced in DSM-III-R to cover those syndromes that in DSM-III would simply have been included under 'Atypical Somatoform Disorder.' In DSM-IV, some minor changes were made in this category after some debate.

4) Treatment

Usually improvement is accelerated with psychotherapy of a supportive, rather than a nondirective, type. There are a substantial proportion of patients who improve or recover with no formal psychotherapy. Judicious use of pharmacotherapy also appears to be beneficial, with trials of antidepressant medications indicated for patients with depressive symptoms, and trials of buspirone, benzodiazepines, and propranolol for patients with anxiety symptoms.¹⁰

4. Conversion Disorder

(DSM-IV Code: 300.11 & ICD-10 Code: F44.x)

The essential features of conversion disorder are the nonintentionally produced symptoms or deficits affecting voluntary motor or sensory function that suggest but are not fully explained by a neurological or general medical condition, by the direct effects of a substance, or by a culturally sanctioned behaviour or experience. Specific symptoms include motor symptoms such as impaired coordination or balance, paralysis or localized weakness, tremor, difficulty swallowing or lump in throat (e.g., 'globus hystericus'), aphonia, and urinary retention; sensory symptoms, including hallucinations, loss of touch or pain sensation, double vision, blindness, and deafness; and seizures or convulsions with voluntary motor or sensory components. Single episodes usually

involve one symptom, but longitudinally other conversion symptoms will be evident as well. Psychological factors generally appear to be involved in that symptoms often occur in the context of a conflictual situation that may in some way be resolved with the development of the symptom.

1) Diagnostic Criteria¹¹

Diagnostic Criteria for Conversion Disorder

- A. One or more symptoms or deficits affecting voluntary motor or sensory function that suggest a neurological or other general medical condition.
- B. Psychological factors are judged to be associated with the symptom or deficit because the initiation or exacerbation of the symptom or deficit is preceded by conflicts or other stressors.
- C. The symptom or deficit is not intentionally produced or feigned (as in Factitious Disorder or Malingering).
- D. The symptom or deficit cannot, after appropriate investigation, be fully explained by a general medical condition, or by the direct effects of a substance, or as a culturally sanctioned behaviour or experience.
- E. The symptom or deficit causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or warrants medical evaluation.
- F. The symptom or deficit is not limited to pain or sexual dysfunction, does not occur exclusively during the course of Somatization Disorder, and is not better accounted for by another mental disorder.

Specify type of symptom or deficit:

With Motor Symptom or Deficit (ICD-10 Code: F.44.4) or With Sensory Symptom or Deficit (ICD-10 Code: F.44.6) or With Seizures or Convulsions (ICD-10 Code: F.44.5) or With Mixed Presentation (ICD-10 Code: F.44.7)

2) Differential Diagnosis¹²

In Common with	Characteristics Shared	Exclusively characteristic of Conversion Disorder, or of the disorder with which it is compared or difference between the two disorders

Pain Disorder or Sexual Dysfunction	Similar symptoms	Here symptoms are limited to pain or sexual dysfunction
Hypochondriasis	Similar symptoms	Here the patient is preoccupied with the 'serious disease' underlying the pseudoneurological symptoms; in conversion disorder the focus is on the presenting symptom
Body Dysmorphic Disorder	Similar symptoms	Here the patient is preoccupied with an imagined or slight defect in appearance rather than a change in voluntary motor or sensory function
Dissociative Disorder	Neurological dysfunction	If both conversion and dissociative symptoms occur in the same individual (which is common), both diagnoses should be made
Hallucinations that occur in the context of a psychotic disorder (e.g., Schizophrenia)	Hallucinations	In Conversion Disorder hallucinations occur with intact insight in the absence of other psychotic symptoms, often involving more than one sensory modality (e.g., a hallucination involving visual, auditory, and tactile components)

3) History

Early studies on conversion disorder were by neurologists including Charcot and Breuer and Freud in the late 19th century and early 20th century. In DSM it was called as 'conversion reaction' and in DSM-II as 'hysterical neurosis, conversion type.' Other names were also used by clinicians like 'conversion hysteria.' In DSM-III they were replaced by the term 'somatization disorder.' Generally, hysteria was used to describe a more pervasive, chronic, and polysymptomatic disorder characterized by multiple unexplained symptoms in many organ systems. Such inconsistency in the use of terms has caused a great confusion. Adding to this confusion was a change introduced in DSM-III and retained in DSM-III-R, whereby the concept of conversion was expanded to include

disorders characterized by symptoms involving any 'loss of, or alteration in, physical functioning suggesting a physical disorder.' In DSM-IV after a long debate, it was decided to retain the term conversion disorder and categorized under somatoform disorders. Nonintentional symptoms or deficits affecting voluntary motor or sensory function are central to conversion disorder.¹³

4) Natural History

The onset of conversion disorder is generally from late childhood to early adulthood. It is rare before age 10 years and seldom first presents after age 35 years, but it has been reported to begin as late as 90s. Onset is generally acute but may be characterized by gradually increasing symptomatology. Factors traditionally associated with good prognosis include acute onset, presence of clearly identifiable stress at the time of onset, a short interval between onset and institution of treatment, and good intelligence. There is better outcome for patients with affective illnesses, and a poor prognosis for those with personality disorders. Generally, individual conversion symptoms are self-limited and do not lead to physical changes or disabilities.¹⁴

5) Aetiology

An etiological hypothesis is implicit in the term 'conversion.' The term conversion is derived from the hypothesized conversion of psychological conflict into a somatic symptom. Though a number of psychological factors have been implicated in the pathogenesis, or at least pathophysiology of conversion disorder, such etiological relationships are difficult to demonstrate.

If not directly etiological, many factors have been suggested as predisposing individuals to conversion disorder. In many cases, preexisting personality disorders are diagnosable and may predispose some individuals to conversion disorder. A number of psychosocial factors in addition to a history of abuse may be involved. Individuals from rural backgrounds and those who are psychologically and medically unsophisticated appear to be predisposed to conversion disorder.¹⁵

6) Treatment

Usually, the initial aim in treating patients with conversion disorder is the removal of the symptom. If the patient is not in

particular discomfort and the need to regain function is not great, direct attention may not be necessary. Under all circumstances, direct confrontation is not recommended since such a communication may cause a patient to feel even more isolated. A conservative approach of reassurance and relaxation is effective. Once physical illness is excluded, prognosis for conversion symptoms is good.

If an immediate need for symptom resolution is required, a number of techniques, including narcoanalysis (e.g., amobarbital interview), hypnosis, and behaviour therapy may be used. It is good to go for prompt resolution of symptoms since longer duration is associated with greater risk of recurrence and chronic disability.

In narcoanalysis, amobarbital or other sedative-hypnotic medication such as lorazepam is given to the patient intravenously to the point of drowsiness. Sometimes this is followed by administration of a stimulant medication such as methamphetamine. At this point the patient is encouraged to discuss stressors and conflicts. More chronic symptoms may not respond to such a technique. In hypnotic therapy, symptoms may be removed during a hypnotic state, with the suggestion that the symptoms will gradually improve posthypnotically. Information regarding stressors and conflicts may be explored as well. Behaviour therapies like relaxation training and aversion therapy could be of use.

In fact it is not the particular technique rather than the influence of suggestion that is important. Therefore various rituals such as exorcism and other religious ceremonies undoubtedly have led to immediate cures. Suggestion seems to play a big part in cases of mass hysteria in which, for example, individuals exposed to a toxin develop similar symptoms that do not appear to have any organic basis. Often, the epidemic can be contained if affected individuals are segregated. Simple announcements that no toxin is present and that symptoms have been linked to mass hysteria will be effective. All these techniques are meant for symptom removal.

Long-term approaches involve a pragmatic, conservative approach that entails support for and exploration of various areas of conflict, particularly interpersonal relationships. Ford (1995) has suggested a treatment strategy based on 'three Ps,' whereby predisposing factors, precipitating stressors, and perpetuating factors

are identified and addressed. A certain degree of insight may be attained, at least in terms of appreciating relationships between various conflicts and stressors and the development of symptoms. Long-term, intensive insight-oriented psychotherapy like psychodynamic would be effective.¹⁶

5. Pain Disorder

1) Diagnostic Criteria¹⁷

Diagnostic Criteria for Pain Disorder

- A. Pain in one or more anatomical sites is the predominant focus of the clinical presentation and is of sufficient severity to warrant clinical attention.
- B. The pain causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. Psychological factors are judged to have an important role in the onset, severity, exacerbation, or maintenance of the pain.
- D. The symptom or deficit is not intentionally produced or feigned (as in Factitious Disorder or Malingering).
- E. The pain is not better accounted for by a Mood, Anxiety, or Psychotic Disorder and does not meet criteria for Dyspareunia.

Code as follows:

(DSM-IV Code: 307.80 & ICD-10 Code: F45.4): Pain Disorder Associated with Psychological Factors: Psychological factors are judged to have the major role in the onset, severity, exacerbation, or maintenance of the pain. (If a general medical condition is present, it does not have a major role in the onset, severity, exacerbation, or maintenance of the pain.) This type of Pain Disorder is not diagnosed if criteria are also met for Somatization Disorder.

Specify if:

Acute: duration of less than 6 months

Chronic: duration of 6 months or longer

(DSM-IV Code: 307.89 & ICD-10 Code: F45.4): Pain Disorder Associated With Both Psychological Factors and a General Medical Condition: Both psychological factors and a general medical condition are judged to have important roles in the onset, severity, exacerbation, or maintenance of the pain. The associated general medical condition or anatomical site of the pain is coded on Axis III.

Specify if:

Acute: duration of less than 6 months

Chronic: duration of 6 months or longer

Pain Disorder Associated With a General Medical Condition: a general medical condition has a major role in the onset, severity, exacerbation, or maintenance of the pain. (If psychological factors are present, they are not judged to have a major role in the onset, severity, exacerbation, or maintenance of the pain.) The diagnostic code for the pain is selected based on the associated general medical condition if one has been established or on the anatomical location of the pain if the underlying general medical condition is not yet clearly established.

2) Differential Diagnosis¹⁸

In Common with	Characteristics shared	Exclusively characteristic of Pain Disorder or of the disorder with which it is compared or the difference between the two disorders
Somatization Disorder	Pain	Here if the pain occurs exclusively during the course of somatization disorder, an additional diagnosis of pain disorder is not made
Dyspareunia	Pain	Here the pain is restricted to sexual intercourse
Conversion Disorder	Pain	Conversion disorder is not limited to pain symptoms by definition
Other mental disorders (e.g., Depressive Disorders, Anxiety Disorders, Psychotic Disorders)	Pain	If the pain is an independent focus of clinical attention, an additional diagnosis of pain disorder is made

6. Hypochondriasis

(DSM-IV Code: 300.7 & ICD-10 Code: F45.2)

Preoccupation with serious disease is normal in every individual, but when it is far in excess of what is justified, then it is hypochondriasis. The essential feature in hypochondriasis is not preoccupation with symptoms themselves but rather with the fear of idea of having a serious disease, based on the misinterpretation of bodily signs and sensations. The preoccupation will persist despite evidence to the contrary and reassurance from the physicians. In fact, preoccupation with symptoms is somatization disorder and preoccupation with implications of the symptoms is hypochondriasis.

Preoccupation with bodily function can be found in the writings of the Hippocratic era. The Greeks attributed the syndrome to disturbances of viscera below the xiphoid cartilage, hence the term ‘hypochondria.’ DSM did not include hypochondriasis as a separate illness, only mentioning ‘hypochondriacal preoccupation’ as one of the malignant symptoms observed in psychotic but not reactive depression. The syndrome was included in DSM-II as hypochondriacal neurosis, and in ICD-9, DSM-III, DSM-III-R, and ICD-10 as hypochondriasis. It was thought that hypochondriasis represents a continuum rather than a discrete entity. It is the disease conviction that is specific to hypochondriasis compared to disease fear as we have in phobic disorder.

1) Diagnostic Criteria¹⁹

Diagnostic Criteria for Hypochondriasis

- A. Preoccupation with fears of having, or the idea that one has, a serious disease based on the person’s misinterpretation of bodily symptoms.
- B. The preoccupation persists despite appropriate medical evaluation and reassurance.
- C. The belief in Criterion A is not of delusional intensity (as in Delusional Disorder, Somatic Type) and is not restricted to a circumscribed concern about appearance (as in Body Dysmorphic Disorder).

- D. The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- E. The duration of the disturbance is at least 6 months.
- F. The preoccupation is not better accounted for by Generalized Anxiety Disorder, Obsessive-Compulsive Disorder, Panic Disorder, a Major Depressive Episode, Separation Anxiety, or another Somatoform Disorder.

Specify if:

With Poor Insight: if, for most of the time during the current episode, the person does not recognize that the concern about having a serious illness is excessive or unreasonable

2) Differential Diagnosis²⁰

In Common with	Characteristics Shared	Exclusively characteristic of Hypochondriasis or of the disorder with which it is compared or the difference between the two disorders
General Medical Condition	Preoccupation with fears of serious disease	Here the symptoms are transient
Somatic symptoms (e.g., abdominal pain) are common in children	Preoccupation with fears of serious disease	Here the symptoms are not prolonged
Health concerns in old age	Bodily preoccupation and fears of debility	Here the symptoms are realistic
Body Dysmorphic Disorder	Bodily concern	Here the concern is limited to the person’s physical appearance
Specific (‘disease’) Phobia	Fear	Here one is afraid of being exposed to a disease; in hypochondriasis one is preoccupied with having a disease

Psychotic Disorders (e.g., Schizophrenia, Delusional Disorder, Somatic Type, and Major Depressive Disorder, With Psychotic Features)	Fear	In hypochondriasis the disease conviction does not reach delusional proportions (e.g., the individual can entertain the possibility that the feared disease is not present)
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3) Aetiology

For Freud, hypochondriasis represented 'the return of object libido onto the ego with cathexis to the body.' From this emerged a number of psychoanalytic theories namely disturbed object relations and repressed hostility displaced to the body, so that anger can be communicated indirectly to others; dynamics involving masochism, guilt, conflicted dependency needs, and a need to suffer and be loved at the same time. Such narcissistic mechanisms have been thought to make the patients unanalyzable. There are also other psychological interpretations, which involve defences against feelings of low self-esteem and inadequacy, perceptual and cognitive abnormalities, and reinforcement for assuming the sick role. Of late, hypochondriasis has been included in the obsessive-compulsive spectrum disorder because of its repetitive thoughts and behaviours that are difficult or impossible to delay or inhibit.²¹

4) Treatment

Until recently, hypochondriasis as a primary condition was not seen to be responsive to known psychopharmacological drugs. However, hypochondriacal symptoms secondary to depressive and anxiety disorders may improve with successful treatment of the primary disorder. The selective serotonin reuptake inhibitors (SSRIs) seem to give good result in treating hypochondriacal symptoms. Supportive, rational, ventilative, and educative psychotherapies are being used. It is advisable that the patient receives consistent treatment, generally by the same primary physician, with supportive, regularly scheduled office visits, not based on the evaluation of symptoms. As far as possible, it is good to avoid hospitalisation, medical tests, and medications with addictive potential. The patient's attention should be shifted from the symptoms to social or interpersonal problems. In any case treatment should prevent adoption of the sick role and chronic invalidism.²²

7. Body Dysmorphic Disorder

(DSM-IV Code: 300.7 & ICD-10 Code: F45.2)

The essential feature of body dysmorphic disorder is a preoccupation with some imagined defect in appearance or markedly excessive concern with a minor physical anomaly. Generally such preoccupation persists even after reassurance. The common complaints in clinical setting include a diversity of imagined flaws of the face or head, including various defects in the hair (too much or too little), skin, shape of the face, or facial features. It could be any body part that could be the focus including genitals, breasts, buttocks, extremities, shoulders, and even overall body size. The nose, ears, face, or sexual organs are most often involved. A number of the patients seeking cosmetic surgery may have body dysmorphic disorder.

1) Diagnostic Criteria²³

Diagnostic Criteria for Body Dysmorphic Disorder

- A. Preoccupation with an imagined defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive.
- B. The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The preoccupation is not better accounted for by another mental disorder (e.g., dissatisfaction with body shape and size in Anorexia Nervosa).

2) Differential Diagnosis²⁴

In Common with	Characteristics Shared	Exclusively characteristic of Body Dysmorphic Disorder or of the disorder with which it is compared or the difference between the two disorders
Normal concerns about appearance	Preoccupation with appearance	In Body Dysmorphic Disorder, the concern is excessive and time consuming and it gives significant distress or impairment in social, occupational, or other areas of functioning

Avoidant Personality Disorder or Social Phobia	Being embarrassed by real defects in appearance	Here in these cases, the concern is not prominent, persistent, distressing, time consuming and impairing
Koro, a culture-bound syndrome that occurs primarily in Southeast Asia that is characterized by the preoccupation that the penis is shrinking and will disappear into the abdomen, resulting in death.	Preoccupation	Koro is of brief duration and will respond positively to reassurance

3) History

Body dysmorphic disorder was first included in DSM-III as dysmorphophobia, which had a long history in the European and Japanese literature. Since the symptoms are not really of a typical phobic nature with avoidance behaviour, the condition was renamed body dysmorphic disorder in DSM-III-R. There is a continuous debate as to whether it is a discrete disorder. ICD-9 did not mention this disorder. ICD-10 lists it as a type of hypochondriacal disorder. Body dysmorphic disorder is not diagnosed if the preoccupation is better accounted for by another mental disorder.

4) Natural History

Onset of body dysmorphic disorder is usually experienced most in adolescence or early adulthood. It is generally known to be a chronic condition and there is rarely full remission. As the time goes on, multiple preoccupations are typical. The same preoccupation may continue and other preoccupations may be added and sometimes certain symptoms remit only to be replaced by others. This disorder is highly incapacitating and almost all persons of this disorder show marked impairment in social and occupational activities. Their limitations are due to embarrassment concerning their 'defects'.²⁵

5) Aetiology

Body dysmorphic disorder has been included with a posited obsessive-compulsive spectrum disorder and with delusional disorders for which a variety of biological pathologies have been posited.²⁶

6) Treatment

Cosmetic or plastic surgery has not been of great help. Promising results have been noted with SSRIs at higher dosage levels as in obsessive-compulsive disorder. Behaviour therapies and dynamic psychotherapies are also helpful.²⁷

8. Somatoform Disorder Not Otherwise Specified

(DSM-IV Code: 300.81 & ICD-10 Code: F45.9)

Somatoform disorder NOS is the true residual category for the somatoform disorders. Unlike undifferentiated somatoform disorder, no minimum duration is required. Some disorders may be relegated to NOS because they do not meet the time requirements for a specified somatoform disorder.

In this category are included disorders with somatoform symptoms that do not meet the criteria for any specific Somatoform Disorder. For example

1. Pseudocyesis: a false belief of being pregnant that is associated with objective signs of pregnancy, which may include abdominal enlargement (although the umbilicus does not become everted), reduced menstrual flow, amenorrhea, subjective sensation of foetal movement, nausea, breast engorgement and secretions, and labour pains at the expected date of delivery. Endocrine changes may be present, but the syndrome cannot be explained by a general medical condition that causes endocrine changes (e.g., a hormone-secreting tumour).
2. A disorder involving nonpsychotic hypochondriacal symptoms of less than 6 months' duration.
3. A disorder involving unexplained physical complaints (e.g., fatigue or body weakness) of less than 6 months' duration that are not due to another mental disorder.²⁸

1) History

DSM-III included atypical somatoform disorder, a minimally defined residual category requiring only that the predominant disturbance of a disorder be characterized by organically or pathophysiologically unexplained physical symptoms or complaints that are apparently linked to psychological factors. In DSM-III-R, the atypical category was renamed and redefined, requiring only the presence of 'somatoform symptoms' (implying that no organic or pathophysiological mechanism was present) and that criteria for any specific somatoform or other psychiatric disorder with physical symptoms were not present. The basic DSM-IV requirement for a diagnosis of somatoform disorder NOS is that a disorder with somatoform symptoms does not meet criteria for a specified somatoform disorder.²⁹

2) Treatment

For patients with pseudocyesis, first, the patient is to be clearly, yet empathically, advised that she is not pregnant. If that does not suffice, then ultrasound scan is recommended to demonstrate to the patient that there is no visible evidence of a foetus. Alternatively, menses are to be induced. Secondly, the patient's expectations, fears, and fantasies are explored to discover the reason why the false pregnancy was needed. It is also recommended to provide a face-saving resolution to the patient's lack of pregnancy, such as allowing the patient to take the position that a 'miscarriage' has taken place. With all these, prognosis is not guaranteed.³⁰

9. Conclusion

There has been a coordinated effort to establish a common, globally used nomenclature. At present, somatoform disorders as characterized in DSM-IV are compatible with, although not identical to, counterparts in ICD-10. What is desired is a common and more explicitly defined nosology that is conducive to empirical research that is truly comparable from one investigation to the next. It is encouraging to note the success of pharmacological treatment for several of these disorders, namely hypochondriasis and body dysmorphic disorder. Continued research is needed to understand these disorders better and offer effective treatments.³¹

10. Decision Tree for Differential Diagnosis³²

Differential Diagnosis of Somatoform Disorders

Physical complaints or irrational anxiety about illness or appearance.

1. Are physical complaints fully explained by a general medical condition and complaints not in excess of expected?

If yes, it is specific (no Somatoform Disorder).

Do psychological factors adversely affect general medical condition?

If yes, then it is .

2. If no to the 1st question, are the physical symptoms intentionally produced?

If yes, are external incentives absent?

If yes, then it is .

If no, then it is .

3. If no to the 2nd question, is there a history of multiple physical complaints with at least 4 pain symptoms, 2 gastrointestinal symptoms, 1 sexual symptom, and 1 pseudoneurological symptom?

If yes, then it is .

4. If no to the 3rd question, is symptom or deficit affecting voluntary motor or sensory function?

If yes, then it is .

5. If no to the 4th question, is symptom or deficit affecting sexual functioning?

If yes, then it is .

6. If no to the 5th question, is pain focus of clinical attention and do psychological factors have important role?

If yes, then it is .

7. If no to the 6th question, are other physical complaints lasting at least 6 months?

If yes, then it is .

8. If no to the 7th question, is there a preoccupation with idea of having a serious disease?

- If yes, is there a belief of a delusional intensity?
 If no, then it is .
 If yes, then see Psychotic Disorders tree.
9. If no to the 8th question, is there a preoccupation with imagined defect in appearance?
 If yes, then it is (if delusional, also see Psychotic Disorder tree).
10. If no to the 9th question, are there clinically significant somatoform symptoms that do not meet criteria for a specific Somatoform Disorder?
 If yes, then it is .
11. If no to the 10th question, then No Somatoform Disorder (somatoform symptoms that are not clinically significant).

8

SLEEP DISORDERS

1. Introduction

The sleep disorders are organized into four major sections according to the presumed aetiology. 1. Primary Sleep Disorders which arise from endogenous abnormalities in sleep-wake generating or timing mechanisms, often complicated by conditioning factors with its subdivisions a. Dyssomnias (characterized by abnormalities in the amount, quality, or timing of sleep) and b. Parasomnias (characterized by abnormal behavioural or physiological events occurring in association with sleep, specific sleep stages, or sleep-wake transitions). 2. Sleep Disorder Related to Another Mental Disorder. 3. Sleep Disorder Due to a General Medical Condition. 4. Substance-Induced Sleep Disorder.

The essential purposes of sleep are still unknown though there are many theories about its function. The known theories are as follows: 1. homeostatic restoration of tissues, particularly the central nervous system (CNS), 2. energy conservation, 3. thermoregulation, 4. discarding of irrelevant memories from the sensorily-overloaded brain, 5. consolidation of perceptual and implicit memory and 6. protection against predation by remaining aloof from predators. In any case a vital function is being served by sleep.¹

2. Normal Human Sleep

The human brain is known to have three major states of activity and function: wakefulness, rapid eye movement (REM) sleep, and non-REM sleep. REM sleep is a dramatic physiologic state in which the brain becomes electrically and metabolically activated with frequencies approaching those wakefulness with a 62%-173% increase in cerebral blood flow. At this time to preserve sleep, there is a generalized muscle atonia. REM sleep occurs in phasic bursts and is accompanied by fluctuations in respiratory and cardiac rate. There is penile and clitoral engorgement and there is a suspension of normal temperature regulation. REM sleep is

frequently vivid and affectively charged and is associated with activation of the amygdaloid complexes, which seems to regulate emotionally influenced memory.

Five distinct sleep stages can be measured by polysomnography: rapid eye movement (REM) sleep and four stages of non-rapid eye movement (NREM) sleep (stages 1,2,3, and 4). Stage 1 NREM sleep is a transition from wakefulness to sleep and occupies about 5% of time spent asleep in healthy adults. Stage 2 NREM sleep, which is characterized by specific EEG waveforms (sleep spindles and K complexes), occupies about 50% of time spent asleep. Stage 3 and 4 NREM sleep (also known collectively as slow-wave sleep) are the deepest levels of sleep and occupy about 10%-20% of sleep time. REM sleep, during which the majority of typical storylike dreams occur, occupies about 20%-25% of total sleep time.

These sleep stages have a characteristic temporal organization across the night. NREM stages 3 and 4 tend to occur in the first one-third to one-half of the night and increase in duration in response to sleep deprivation. REM sleep occurs cyclically throughout the night, alternating with NREM sleep about 80-100 minutes. REM sleep periods increase in duration toward the morning.

Sleep cannot be localized to a single neurotransmitter system or anatomic location within the brain. The sleep-promoting and wake-promoting systems interact antagonistically and appear to be controlled by several neurotransmitters. Non-REM sleep appears to be driven by the basal forebrain, the area around the solitary tract in the medulla, and the dorsal raphe nucleus (serotonergic cells). Waking and arousal are regulated by other areas of the brain, primarily the ascending reticular activating system and the posterior hypothalamus.²

3. Ontogeny of Sleep Stages

Human sleep also varies characteristically across the life span. After relative stability with large amounts of slow-wave sleep in childhood and early adolescence, sleep continuity and depth deteriorate across the adult age range. This deterioration is reflected by increased wakefulness and stage 1 sleep and decreased stages 3 and 4 sleep.

Infants at birth sleep up to 20 hours per day. REM and non-REM stages are not fully differentiated until 3-6 months of age. During the first 3 years, the sleep-wake rhythm develops from an ultradian to a circadian pattern with the major sleep occurring at night. In prepubertal children sleep is by large REM and high-amplitude slow-wave sleep. During adolescence, there occurs a precipitous decrease in slow-wave sleep. From 30s to 60s, there is a gradual and slight decline in sleep efficiency and total sleep time. And with advancing age, sleep becomes more fragmented and lighter. There are more transient arousals, as well as sleep stage shifts, and there is also a gradual disappearance of slow-wave sleep. The diurnal sleep-wake pattern deteriorates as sleep is redistributed into light phase in the form of frequent naps.³

4. Primary Sleep Disorders

A. Dyssomnias

Dyssomnias are primary disorders of initiating or maintaining sleep or of excessive sleepiness, and are characterized by a disturbance in the amount, quality, or timing of sleep. In this section we have Primary Insomnia, Primary Hypersomnia, Narcolepsy, Breathing-Related Sleep Disorder, Circadian Rhythm Sleep Disorder, and Dyssomnia Not Otherwise Specified.

1) Primary Insomnia

(DSM-IV Code: 307.42 & ICD-10 Code: F50.0)

Primary insomnia involves difficulty initiating or maintaining sleep, or nonrestorative sleep, lasting at least a month in duration. It results in significant daytime impairment, and is not secondary to another sleep disorder. In some cases, primary insomnia represents a lifetime disorder or trait characteristic in which the patient has a constitutional predisposition for fragmented sleep. They are extremely light sleepers and are easily perturbed by environmental noise, temperature fluctuations, and situational anxiety. It is a disorder of hyperarousal. In some, primary insomnia follows a period of severe stress. In them insomnia does not remit with the resolution of the stressful event, because the new behaviours that disrupt sleep may have been adopted.

(1) Diagnostic Criteria⁴

Diagnostic Criteria for Primary Insomnia

- A. The predominant complaint is difficulty initiating or maintaining sleep, or nonrestorative sleep, for at least 1 month.
- B. The sleep disturbance (or associated daytime fatigue) causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The sleep disturbance does not occur exclusively during the course of Narcolepsy, Breathing-Related Sleep Disorder, Circadian Rhythm Sleep Disorder, or a Parasomnia.
- D. The disturbance does not occur exclusively during the course of another mental disorder (e.g., Major Depressive Disorder, Generalized Anxiety Disorder, Delirium).
- E. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

(2) Differential Diagnosis⁵

In Common with	Characteristics Shared	Exclusively characteristic of Primary Insomnia or of the disorder with which it is compared or the difference between the two disorders
Short sleepers	Concern about sleep duration	Short sleepers do not have difficulty falling asleep, and have no intermittent wakefulness, fatigue, concentration problems, or irritability.
Primary Hypersomnia	Daytime sleepiness	Here it is not as severe as in primary insomnia.
Circadian Rhythm Sleep Disorder (e.g., Jet Lag and Shift Work)	Sleep disturbance	Here the symptom follows a recent transmeridian travel or shift work; they may have difficulty in falling asleep at socially normal time, but not at their preferred times.

Narcolepsy	Sleep disturbance	Here it is marked by symptoms of prominent daytime sleepiness, cataplexy, sleep paralysis, and sleep-related hallucinations.
Breathing-Related Sleep Disorder	Sleep disturbance	Here the symptom involves loud snoring, breathing pauses during sleep, and excessive daytime sleepiness.
Parasomnias	Sleep disturbance	Here the symptom includes unusual behaviour or events during sleep.

(3) Evaluation of Chronic Insomnia

First of all, evaluate for a general medical condition that may adversely affect sleep. Secondly, evaluate whether medications or substance use is disrupting sleep. Thirdly, evaluate whether another mental disorder such as depression, schizophrenia, or anxiety disorder is causing sleep disruption. Fourthly, consider a breathing-related sleep disorder, particularly if the patient snores or is obese. Fifthly, consider a sleep-wake schedule disorder if the patient has an irregular schedule or is involved in shift work. Sixthly, consider a parasomnia diagnosis if the patient complains of behavioural or mental events that occur during sleep. Seventhly, if insomnia has persisted for more than a month and is not related to the above disorders, then the diagnosis is primary insomnia. Eighthly, if insomnia is not described by the above criteria, then the diagnosis of dyssomnia not otherwise specified is used.⁶

(4) Treatment

The patient could be educated about normal sleep and counselled around habits for promoting good sleep hygiene. One can also use various relaxation therapies like hypnosis, meditation, deep breathing, and progressive muscle relaxation. Eliminating environmental cues associated with arousal can be done by stimulus control behaviour modification. In this technique, the patients are instructed to use their bed only for sleep and intimacy, to go to bed only when sleepy, to remove clocks from sight, and to adhere to a stable sleep-wake schedule. This is to reduce the amount of wake time spent in bed, thereby reestablishing the association between the bed and sleep.⁷

2) Primary Hypersomnia

(DSM-IV Code: 307.44 & ICD-10 Code: F51.1)

Primary hypersomnia is a diagnosis of exclusion, made when other disorders causing excessive sleepiness have been ruled out. The pathophysiology of primary hypersomnia is postulated to involve an underlying disturbance of limbic and hypothalamic function.

(1) Diagnostic Criteria⁸

Diagnostic Criteria for Primary Hypersomnia

- A. The predominant complaint is excessive sleepiness for at least 1 month (or less if recurrent) as evidenced by either prolonged sleep episodes or daytime sleep episodes that occur almost daily.
- B. The excessive sleepiness causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The excessive sleepiness is not better accounted for by insomnia and does not occur exclusively during the course of another Sleep Disorder (e.g., Narcolepsy, Breathing-Related Sleep Disorder, Circadian Rhythm Sleep Disorder, or a Parasomnia) and cannot be accounted for by an inadequate amount of sleep.
- D. The disturbance does not occur exclusively during the course of another mental disorder.
- E. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Specify if:

Recurrent: if there are periods of excessive sleepiness that last at least 3 days occurring several times a year for at least 2 years.

(2) Differential Diagnosis⁹

In Common with	Characteristics Shared	Exclusively characteristic of Primary Hypersomnia or of the disorder with which it is compared or difference between the two disorders

Long sleepers	Excessive sleepiness	Here the patients do not have excessive daytime sleepiness, sleep drunkenness, or automatic behaviour if they obtain their required amount of nocturnal sleep; in primary hypersomnia, excessive sleepiness occurs regardless of nocturnal sleep duration
Inadequate amount of nocturnal sleep	Daytime sleepiness	Here it is due to the lack of required nocturnal sleep
Primary Insomnia	Daytime sleepiness	Here the symptom is less severe
Narcolepsy	Daytime sleepiness	Here patients with narcolepsy have cataplexy and recurrent intrusions of elements of REM sleep into the transition between sleep and wakefulness
Breathing-Related Sleep Disorder	Excessive sleepiness	Here the patients have loud snoring, pauses in breathing during sleep, brain injury or cardiovascular disease, obesity, oropharyngeal anatomical abnormalities, hypertension, or heart failure

3) Narcolepsy

(DSM-IV Code: 347 & ICD-10 Code: G47.4)

Narcolepsy is a common cause of daytime hypersomnolence in which REM sleep repeatedly and suddenly intrudes into wakefulness. This can be said to represent an impairment in the ability to maintain a stable neural state. Both cataplexy and sleep paralysis involve muscle atonia occurring at a time when the patient is cognizant of the environment and subjectively feels awake. There is enough evidence to indicate the heritable transmission of the disorder. It might affect the psychological state and cognition of the patient. Impaired performance is found in tasks that require sustained attention as a result of intrusive microsleeps.

(1) Diagnostic Criteria¹⁰

Diagnostic Criteria for Narcolepsy

- A. Irresistible attacks of refreshing sleep that occur daily over at least 3 months
- B. The presence of one or both of the following:
 - (1) cataplexy (i.e., brief episodes of sudden bilateral loss of muscle tone, most often in association with intense emotion)
 - (2) recurrent intrusions of elements of rapid eye movement (REM) sleep into the transition between sleep and wakefulness, as manifested by either hypnopompic or hypnagogic hallucinations or sleep paralysis at the beginning or end of sleep episodes
- C. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or another general medical condition.

(2) Differential Diagnosis¹¹

In Common with	Characteristics Shared	Exclusively characteristic of Narcolepsy or of the disorder with which it is compared or the difference between the two disorders
Sleep deprivation	Daytime sleepiness	Here the patients generally do not experience cataplexy, sleep-related hallucinations, or sleep paralysis
Primary Hypersomnia	Daytime sleepiness	Here the patients generally have prolonged and less disrupted nocturnal sleep and at daytime they have more prolonged, unrefreshing sleep periods and are less often associated with dreaming
Breathing-Related Sleep Disorder	Excessive sleepiness	Here the patients have loud snoring, breathing pauses that disrupt nocturnal sleep, lengthy and unrefreshing daytime sleep episodes and the absence of accessory symptoms such as cataplexy

4) Breathing-Related Sleep Disorder

(DSM-IV Code: 780.59 & ICD-10 Code: G47.3)

Because it must be flexible for purposes of swallowing and production of speech, the upper airway has an inherent potential for collapse during respiration. To compensate for this vulnerability, there is a complex set of muscles that dilate the upper airway during inspiration. The neurological regulation of these muscles differs in each of the major brain states: wakefulness, non REM sleep, and REM sleep. In REM sleep the phasic activity of these muscles with each breath is diminished, leading to an increased potential for collapse. In addition, anatomic factors that affect lumen size (e.g., obesity) and exogenous factors that reduce phasic muscle activity of the upper airway can independently lead to an increased potential for airway collapse.

Although occasionally causing insomnia, sleep apnea is typically an occult disorder that causes daytime somnolence, impaired concentration and intellectual functioning, and morning headaches. It is associated with obesity, loud snoring, systemic and pulmonary hypertension, cardiac arrhythmias, nocturnal cardiac ischemia, myocardial infarction, and excessive mortality. It can be caused by an impairment in central respiratory drive (central apnea), intermittent upper airway obstruction (obstructive apnea), or a combination of the two (mixed apnea). Patients with this disorder experience frequent respiratory pauses during sleep that are associated with oxygen desaturation. The apneic events are terminated by loud gasping, thrashing movements, as well as arousal on EEG. Patients usually have no awareness of these events; only those who happen to sleep near them will know these.

(1) Diagnostic Criteria¹²

Diagnostic Criteria for Breathing-Related Sleep Disorder

- A. Sleep disruption, leading to excessive sleepiness or insomnia, that is judged to be due to a sleep-related breathing condition (e.g., obstructive or central sleep apnea syndrome or central alveolar hypoventilation syndrome).
- B. The disturbance is not better accounted for by another mental disorder and is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or another general medical condition (other than a breathing-related disorder).

Coding note: Also code sleep-related breathing disorder on Axis III.

(2) Differential Diagnosis¹³

In Common with	Characteristics Shared	Exclusively characteristic of Breathing-Related Sleep Disorder or of the disorder with which it is compared or difference between the two disorders
Narcolepsy	Sleep disturbance	Breathing-Related Sleep Disorder does not have cataplexy, sleep-related hallucinations, and sleep paralysis and has loud snoring, gasping during sleep, or observed apneas or shallow breathing in sleep.
Primary Hypersomnia & Circadian Rhythm Sleep Disorder	Sleep disturbance	Here these two disorders do not have obstructive sleep apnea, central sleep apnea, or central alveolar hypoventilation syndromes

(3) Treatment

There are a few behavioural approaches, which include weight loss, abstinence from sedative-hypnotics, and sleep-position training (which helps the patient avoid the supine position during sleep). Mechanical approaches include use of tongue-retaining devices, orthodontic appliances that advance the mandible and nasal continuous positive airway pressure. Some patients benefit from surgical techniques.¹⁴

5) Circadian Rhythm Sleep Disorder (Formerly Sleep-Wake Schedule Disorder)

(DSM-IV Code: 307.45 & ICD-10 Code: F51.2)

The sleep-wake cycle, under the circadian control of endogenous regulators or oscillators, can be disrupted by a misalignment between biological rhythms and external demands on waking behaviour. In mammals the circadian cycle is under the principal control of the suprachiasmatic nucleus. Circadian rhythm sleep disorders, the vast majority of which do not involve any known structural damage to neural oscillators, present with either insomnia or hypersomnolence, depending on the juxtaposition of performance demands and the underlying circadian cycle.

Shift work type disorder is associated with high rates of gastrointestinal, cardiac, and reproductive disorders. Rapid shifts in the sleep-wake schedule cause an acute circadian dysrhythmia. The jet lag type is one of the most common of these disorders.

(1) Diagnostic Criteria¹⁵**Diagnostic Criteria for Circadian Rhythm Sleep Disorder**

- A. A persistent or recurrent pattern of sleep disruption leading to excessive sleepiness or insomnia that is due to a mismatch between the sleep-wake schedule required by a person's environment and his or her circadian sleep-wake pattern.
- B. The sleep disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The disturbance does not occur exclusively during the course of another Sleep Disorder or other mental disorder.
- D. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Specify type:

Delayed Sleep Phase Type: a persistent pattern of late sleep onset and late awakening times, with an inability to fall asleep and awaken at a desired earlier time or Jet Lag Type: sleepiness and alertness that occur at an inappropriate time of day relative to local time, occurring after repeated travel across more than one time zone or Shift Work Type: insomnia during the major sleep period or excessive sleepiness during the major awake period associated with night shift work or frequently changing shift work or Unspecified Type.

(2) Differential Diagnosis¹⁶

In Common with	Characteristics Shared	Exclusively characteristic of Circadian Rhythm Sleep Disorder or of the disorder with which it is compared or difference between the two disorders
Normal patterns of sleep & normal adjustments following a change in schedule	Sleep disturbance	Here in these two conditions the degree of the presence of social or occupational impairment is less

Volitional patterns of delayed sleep hours	Sleep disturbance (difficulty in awakening)	Here when these people decide to go to bed earlier, the disturbance disappears
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(3) Treatment

The overall treatment approach is to promote good sleep hygiene, with the goal of properly aligning the patients' circadian system with their sleep-wake schedule. Phototherapy is known to help people with circadian rhythm sleep disorder. Exposure to light at 2,000 lux or more can shift circadian rhythms. Patients are instructed to sit 3 feet in front of a bright light source of at least 2,500 lux intensity. Patients may require between 30 minutes and 2 hours of exposure, depending on therapeutic response. The timing of exposure depends on the direction in which patients wish to shift their sleep-wake schedule. Morning exposure will phase-advance the sleep-wake schedule; evening exposure will phase-delay the schedule. Melatonin is used primarily for its apparent ability to phase-shift the endogenous circadian rhythm. Ingestion of melatonin in the early evening causes the endogenous melatonin release to occur earlier and produces an enhanced propensity for an earlier sleep onset.¹⁷

6) Dyssomnia Not Otherwise Specified

(DSM-IV Code: 307.47 & ICD-10 Code: F51.9)

The Dyssomnia Not Otherwise Specified category is for insomnias, hypersomnias, or circadian rhythm disturbances that do not meet criteria for any specific Dyssomnia. Examples are

1. Complaints of clinically significant insomnia or hypersomnia that are attributable to environmental factors (e.g., noise, light, frequent interruptions).
2. Excessive sleepiness that is attributable to ongoing sleep deprivation.
3. Idiopathic 'Restless Legs Syndrome': uncomfortable sensations (e.g., discomfort, crawling sensations, or restlessness) that lead to an intense urge to move the legs. Typically, the sensations begin in the evening before sleep onset and are temporarily relieved by

moving the legs or walking, only to begin again when the legs are immobile. The sensations can delay sleep onset or awaken the individual from sleep.

4. Idiopathic periodic limb movements ('nocturnal myoclonus'): repeated low-amplitude brief limb jerks, particularly in the lower extremities. These movements begin near sleep onset and decrease during stage 3 or 4 non-rapid eye movement (NREM) and rapid eye movement (REM) sleep. Movements usually occur rhythmically every 20-60 seconds, leading to repeated, and brief arousals. Individuals are typically unaware of the actual movements, but may complain of insomnia, frequent awakenings, or daytime sleepiness if the number of movements is very large.
5. Situations in which the clinician has concluded that a Dyssomnia is present but is unable to determine whether it is primary, due to a general medical condition, or substance induced.¹⁸

B. Parasomnias

Parasomnias represent abnormal behavioural or physiological events occurring in association with sleep, specific sleep stages, or sleep-wake transitions. They involve the activation of physiological systems at inappropriate times during the sleep-wake cycle. Particularly they activate autonomic nervous system, motor system, or cognitive processes during sleep or sleep-wake transitions. Different parasomnias occur at different times during sleep, and specific parasomnias often occur during specific sleep stages. In this section we include Nightmare Disorder, Sleep Terror Disorder, Sleepwalking Disorder, and Parasomnia Not Otherwise Specified.

1) Nightmare Disorder (Formerly Dream Anxiety Disorder)

(DSM-IV Code: 307.47 & ICD-10 Code: F51.5)

(1) Diagnostic Criteria¹⁹

Diagnostic Criteria for Nightmare Disorder

- A. Repeated awakenings from the major sleep period or naps with detailed recall of extended and extremely frightening dreams, usually involving threats to survival, security, or self-esteem. The awakenings generally occur during the second half of the sleep period.

- B. On awakening from the frightening dreams, the person rapidly becomes oriented and alert (in contrast to the confusion and disorientation seen in Sleep Terror Disorder and some forms of epilepsy).
- C. The dream experience, or the sleep disturbance resulting from the awakening, causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The nightmares do not occur exclusively during the course of another mental disorder (e.g., a delirium, Posttraumatic Stress Disorder) and are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

(2) Differential Diagnosis²⁰

In Common with	Characteristics Shared	Exclusively characteristic of Nightmare Disorder or of the disorder with which it is compared or difference between the two disorders
Sleep Terror Disorder	Awakenings or partial awakenings with fearfulness and autonomic activation	Nightmare occurs later in the night during REM sleep with vivid dream imagery, complete awakenings, mild autonomic arousal, and detailed recall of the event. Sleep terror occurs in the first third of the night during stage 3 or 4 NREM sleep with no dream recall.
Breathing-Related Sleep Disorder	Awakenings with autonomic arousal	Here there is no recall of frightening dreams.
Narcolepsy	Frequent complaints of nightmare	Here there is the presence of excessive sleepiness and cataplexy.
Panic Attacks	Abrupt awakenings with autonomic arousal and fearfulness	Here there is no frightening dreams.

2) Sleep Terror Disorder

(DSM-IV Code: 307.47 & ICD-10 Code: F51.4)

(1) Diagnostic Criteria²¹

Diagnostic Criteria for Sleep Terror Disorder

- A. Recurrent episodes of abrupt awakening from sleep, usually occurring during the first third of the major sleep episode and beginning with a panicky scream.
- B. Intense fear and signs of autonomic arousal, such as tachycardia, rapid breathing, and sweating, during each episode.
- C. Relative unresponsiveness to efforts of others to comfort the person during the episode.
- D. No detailed dream is recalled and there is amnesia for the episode.
- E. The episodes cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- F. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

(2) Differential Diagnosis²²

In Common with	Characteristics Shared	Exclusively characteristic of Sleep Terror Disorder or of the disorder with which it is compared or difference between the two disorders
Nightmare Disorder	Complete or partial awakenings at night or unusual behaviour during sleep	Here typically they awaken easily and completely, report vivid storylike dreams
Sleepwalking Disorder	Unusual behaviour during sleep	Here they have little autonomic arousal or fear and a greater degree of organized motor activity
Hypnagogic Hallucinations and Narcolepsy	Unusual behaviour	Here they have the occurrence at sleep onset, have vivid images, and subjective sensation of wakefulness

Breathing-Related Sleep Disorder	Awakening associated with fear and panic	Here they are associated with snoring, obesity, and respiratory symptoms
Seizures	Subjective sensations of fear followed by confusion and difficulty awakening	Most nocturnal seizures occur at sleep-wake transitions; incontinence and tonic-clonic movements mark a seizure disorder

3) Sleepwalking Disorder

(DSM-IV Code: 307.46 & ICD-10 Code: F51.3)

(1) Diagnostic Criteria²³

Diagnostic Criteria for Sleepwalking Disorder

- A. Repeated episodes of rising from bed during sleep and walking about, usually occurring during the first third of the major sleep episode.
- B. While sleepwalking, the person has a blank, staring face, is relatively unresponsive to the efforts of others to communicate with him or her, and can be awakened only with great difficulty.
- C. On awakening (either from the sleepwalking episode or the next morning), the person has amnesia for the episode.
- D. Within several minutes after awakening from the sleepwalking episode, there is no impairment of mental activity or behaviour (although there may initially be a short period of confusion or disorientation).
- E. The sleepwalking causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- F. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

(2) Differential Diagnosis²⁴

In Common with	Characteristics Shared	Exclusively characteristic of Sleepwalking Disorder or of the disorder with which it is compared or difference between the two disorders
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Nonclinically significant sleepwalking episodes (in children)	Sleepwalking	The exact boundary between these two disorders are indistinct.
Sleep Terror Disorder	Movement, difficulty awakening, and amnesia for the event	An initial scream, signs of intense fear and panic, and autonomic arousal are more characteristic of Sleep Terror Disorder.
Breathing-Related Sleep Disorder	Confusional arousal with subsequent amnesia	Here the patients have snoring, breathing pauses, and daytime sleepiness.
Sleep-related epilepsy	The individual is unresponsive and amnesic for the episode	Here it produces more stereotypical, perseverative, low-complexity movements than those in sleep walking.

4) Parasomnia Not Otherwise Specified

(DSM-IV Code: 307.47 & ICD-10 Code: F51.8)

In the Parasomnia Not Otherwise Specified category are included disturbances that are characterized by abnormal behavioural or physiological events during sleep or sleep-wake transitions, but that do not meet criteria for a more specific Parasomnia. Examples are

1. REM sleep behaviour disorder: motor activity, often of a violent nature, that arises during rapid eye movement (REM) sleep. Unlike sleepwalking, these episodes tend to occur later in the night and are associated with vivid dream recall.
2. Sleep paralysis: an inability to perform voluntary movement during the transition between wakefulness and sleep. The episodes may occur at sleep onset (hypnagogic) or with awakening (hypnopompic). The episodes are usually associated with extreme anxiety and, in some cases, fear of impending death. Sleep paralysis occurs commonly as an ancillary symptom of Narcolepsy and, in such cases, should not be coded separately.

3. Situations in which the clinician has concluded that a Parasomnia is present but is unable to determine whether it is primary, due to a general medical condition, or substance induced.

5. Sleep Disorders Related to another Mental Disorder

1) Insomnia Related to another Mental Disorder

(DSM-IV Code: 307.42 & ICD-10 Code: F51.0)

Diagnostic Criteria²⁵

Diagnostic Criteria for Insomnia Related to... (Indicate the Axis I or Axis II disorder)

- A. The predominant complaint is difficulty initiating or maintaining sleep, or nonrestorative sleep, for at least 1 month that is associated with daytime fatigue or impaired daytime functioning.
- B. The sleep disturbance (or daytime sequelae) causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The insomnia is judged to be related to another Axis I or Axis II disorder (e.g., Major Depressive Disorder, Generalized Anxiety Disorder, Adjustment Disorder With Anxiety), but is sufficiently severe to warrant independent clinical attention.
- D. The disturbance is not better accounted for by another Sleep Disorder (e.g., Narcolepsy, Breathing-Related Sleep Disorder, a Parasomnia).
- E. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

2) Hypersomnia Related to another Mental Disorder

(DSM-IV Code: 307.44 & ICD-10 Code: F51.1)

Diagnostic Criteria²⁶

Diagnostic Criteria for Hypersomnia Related to ... (Indicate the Axis I or Axis II disorder)

- A. The predominant complaint is excessive sleepiness for at least 1 month as evidenced by either prolonged sleep episodes or daytime sleep episodes that occur almost daily.

- B. The excessive sleepiness causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The hypersomnia is judged to be related to another Axis I or Axis II disorder (e.g., Major Depressive Disorder, Dysthymic Disorder), but is sufficiently severe to warrant independent clinical attention.
- D. The disturbance is not better accounted for by another Sleep Disorder (e.g., Narcolepsy, Breathing-Related Sleep Disorder, a Parasomnia) or by an inadequate amount of sleep.
- E. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

3) Differential Diagnosis²⁷ (Here insomnia and hypersomnia are taken together to compare with other disorders)

In Common with	Characteristics Shared	Exclusively characteristic of Insomnia or of the disorder with which it is compared or Hypersomnia related to another mental disorder or the difference between the two disorders
Major Depressive Disorder	Difficulty in falling or staying asleep in the middle of the night	Here no independent sleep disorder diagnosis is warranted unless the symptom is out of proportion.
Primary Insomnia or Primary Hypersomnia	Sleep disturbance	A diagnosis of primary insomnia or primary hypersomnia is made when the insomnia or hypersomnia is accompanied by symptoms (e.g., anxiety, depressed mood) that do not meet criteria for a specific mental disorder.
Another sleep disorder (e.g., Narcolepsy)	Sleep disturbance	Insomnia or hypersomnia related to another mental disorder is not diagnosed if the presentation is better accounted for by another sleep disorder.

6. Other Sleep Disorders

1) Sleep Disorder Due to a General Medical Condition

(DSM-IV Code: 780.xx & ICD-10 Code: G47.x)

(1) Diagnostic Criteria²⁸

Diagnostic Criteria for Sleep Disorder Due to ... (Indicate the General Medical Condition)

- A. A prominent disturbance in sleep that is sufficiently severe to warrant independent clinical attention.
- B. There is evidence from the history, physical examination, or laboratory findings that the sleep disturbance is the direct physiological consequence of a general medical condition.
- C. The disturbance is not better accounted for by another mental disorder (e.g., an Adjustment Disorder in which the stressor is a serious medical illness).
- D. The disturbance does not occur exclusively during the course of a delirium.
- E. The disturbance does not meet the criteria for Breathing-Related Sleep Disorder or Narcolepsy.
- F. The sleep disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify type:

(DSM-IV Code: 780.52 & ICD-10 Code: G47.0) Insomnia Type: if the predominant sleep disturbance is insomnia or (DSM-IV Code: 780.54 & ICD-10 Code: G47.1) Hypersomnia Type: if the predominant sleep disturbance is hypersomnia or (DSM-IV Code: 780.59 & ICD-10 Code: G47.8) Parasomnia Type: if the predominant sleep disturbance is a Parasomnia or (DSM-IV Code: 780.59 & ICD-10 Code: G47.8) Mixed Type: if more than one sleep disturbance is present and none predominates

Coding note: include the name of the general medical condition on Axis I, e.g., 780.52 Sleep Disorder Due to Chronic Obstructive Pulmonary Disease, Insomnia Type; also code the general medical condition on Axis III.

(2) Differential Diagnosis²⁹

In Common with	Characteristics Shared	Exclusively characteristic of Sleep Disorder Due to a General Medical Condition or of the disorder with which it is compared or difference between the two disorders
Primary Sleep Disorders	Sleep disturbance	Here the symptoms are not etiologically connected to a general medical condition
Narcolepsy & Breathing-Related Sleep Disorder	Sleep disturbance	Here the symptoms are not etiologically connected to a general medical condition
Substance-Induced Sleep Disorder	Sleep disturbance	A urine or blood drug screen may help to differentiate these two disorders

7. Substance-Induced Sleep Disorder

1) Diagnostic Criteria³⁰

Diagnostic Criteria for Substance-Induced Sleep Disorder

- A. A prominent disturbance in sleep that is sufficiently severe to warrant independent clinical attention.
- B. There is evidence from the history, physical examination, or laboratory findings of either (1) or (2):
 - (1) The symptoms in Criterion A developed during, or within a month of, Substance Intoxication or Withdrawal
 - (2) Medication use is etiologically related to the sleep disturbance
- C. The disturbance is not better accounted for by a Sleep Disorder that is not substance induced. Evidence that the symptoms are better accounted for by a Sleep Disorder that is not substance induced might include the following: the symptoms precede the onset of the substance use (or medication use); the symptoms persist for a substantial period of time (e.g., about a month) after the cessation of acute withdrawal or severe intoxication, or are substantially in excess of what would be expected given the type or amount of the substance used or the duration of use; or there

is other evidence that suggests the existence of an independent non-substance-induced Sleep Disorder (e.g., a history of recurrent non-substance-related episodes).

- D. The disturbance does not occur exclusively during the course of a delirium.
- E. The sleep disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Note: This diagnosis should be made instead of a diagnosis of Substance Intoxication or Substance Withdrawal only when the sleep symptoms are in excess of those usually associated with the intoxication or withdrawal syndrome and when the symptoms are sufficiently severe to warrant independent clinical attention.

Code (Specific Substance)-Induced Sleep Disorder:

(DSM-IV Code: 291.8 & ICD-10 Code: F10.8) Alcohol;

(DSM-IV Code: 292.89 & ICD-10 Code: F15.8) Amphetamine;

(DSM-IV Code: 292.89 & ICD-10 Code: F15.8) Caffeine;

(DSM-IV Code: 292.89 & ICD-10 Code: F14.8) Cocaine;

(DSM-IV Code: 292.89 & ICD-10 Code: F11.8) Opioid;

(DSM-IV Code: 292.89 & ICD-10 Code: F13.8) Sedative, Hypnotic, or Anxiolytic;

(DSM-IV Code: 292.89 & ICD-10 Code: F19.8) Other [or Unknown] substance)

Specify type:

Insomnia Type: if the predominant sleep disturbance is insomnia

Hypersomnia Type: if the predominant sleep disturbance is hypersomnia

Parasomnia Type: if the predominant sleep disturbance is a Parasomnia

Mixed Type: if more than one sleep disturbance is present and none predominates

Specify if:

With Onset During Intoxication: if the criteria are met for Intoxication with the substance and the symptoms develop during the intoxication syndrome or With Onset During Withdrawal: if criteria are met for Withdrawal from the substance and the symptoms develop during, or shortly after, a withdrawal syndrome

2) Differential Diagnosis³¹

In Common with	Characteristics Shared	Exclusively characteristic of Substance-Induced Sleep Disorder or of the disorder with which it is compared or difference between the two disorders.
Substance Intoxication or Substance Withdrawal	Sleep disturbance	Here the disturbance is less severe.
Delirium	Sleep disturbance	Here the disturbance occurs only during the delirium
Primary Sleep Disorder, Insomnia or Hypersomnia related to another mental disorder	Sleep disturbance	Here in these disorders, the sleep disturbance should not be etiologically related to a substance.

8. Conclusion

There is a lot to be learnt about the nature of sleep and its mechanism. Disordered sleep has protean effects on mood, attention, memory, and general sense of vigour. Careful assessment and treatment are important in dealing with sleep disorders.³²

9

SEXUAL AND GENDER IDENTITY DISORDERS

1. Introduction

In this chapter we shall consider the Sexual Dysfunctions, the Paraphilias, the Gender Identity Disorders and Sexual Disorders Not Otherwise Specified. The sexual dysfunctions are characterized by disturbance in sexual desire and in the psychophysiological changes that characterize the sexual response cycle and cause marked distress and interpersonal difficulty. The sexual dysfunctions include sexual desire disorders (i.e., hypoactive sexual desire disorder, sexual aversion disorder), sexual arousal disorders (i.e., female sexual arousal disorder, male erectile disorder), orgasmic disorders (i.e., female orgasmic disorder, male orgasmic disorder, premature ejaculation), sexual pain disorders (i.e., dyspareunia, vaginismus), sexual dysfunction due to a general medical condition, substance induced sexual dysfunction, and sexual dysfunction not otherwise specified.

The paraphilias are characterized by recurrent, intense sexual urges, fantasies, or behaviours that involve unusual objects, activities, or situations that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. The paraphilias include exhibitionism, fetishism, frotteurism, pedophilia, sexual masochism, sexual sadism, transvestic fetishism, voyeurism, and paraphilia not otherwise specified.

Gender identity disorders are characterized by strong and persistent cross-gender identification accompanied by persistent discomfort with one's assigned sex. Sexual disorder not otherwise specified is meant for coding disorders of sexual functioning that are not classifiable in any of the specific categories. It is necessary to note that the concepts of deviance, standards of sexual performance, and concepts of appropriate gender role can vary from culture to culture.¹

2. Sexual Dysfunctions

Human sexual functioning requires a complex interaction of the nervous, vascular, and endocrine systems to produce arousal and orgasm. In men sexual arousal occurs in the presence of visual stimuli (e.g., a naked partner), fantasies, or physical stimulation of the genitals or other areas of the body (e.g., the nipples). This stimulation leads to involuntary discharge in the parasympathetic nerves that control the diameter and valves of the penile blood vessels. There is then increased blood flow into the corpora cavernosa, two cylinders of specialized tissue in the penis that distend with blood to produce an erection. Continued stimulation leads to emission of semen and ejaculation, which are controlled through sympathetic fibers and the pudendal nerve. Dopaminergic systems in the central nervous system facilitate arousal and ejaculation, whereas serotonergic systems inhibit these functions. In addition, androgens must be present to expedite sexual arousal (and to some extent erection and ejaculation).

In women, as in men, arousal depends on fantasies, visual stimuli, and physical stimulation; in general, physical stimulation is more important for women, whereas visual cues are more important for men. The stimulation leads to parasympathetic nervous discharge that increases blood flow to the female genitalia, resulting in lubrication of the vagina and some enlargement of the clitoris. Continued stimulation of the clitoris either directly or through intercourse results in orgasm. Estrogens and progestins play a role in female sexual functioning; however, androgens are important in the maintenance of sexual arousal in women. As in men, dopaminergic systems facilitate female sexual arousal and orgasm, whereas serotonergic systems inhibit these functions.

Normal sexual functioning and processes require intact neural and vascular connections to the genitals along with normal endocrine functioning. Therefore any illness that interferes with these systems can lead to sexual dysfunctions (e.g., multiple sclerosis, lumbar or sacral spinal cord trauma, herniated disks), thrombosis of the arteries or veins of the penis, diabetes mellitus (which causes both neurological and vascular damage), endocrine disorders (e.g., hyperprolactinemia), liver disease (which leads to a buildup of estrogens).

Drugs that affect these systems also can impair sexual functioning. Thus, antihypertensives, because of their antiadrenergic effects, can impair erectile function in men and lubrication in women; antipsychotics, tricyclic antidepressants, and monoamine oxidase inhibitors can inhibit the same functions through their anticholinergic effects. Antipsychotics can impair arousal and orgasm because of their dopamine-blocking effects, whereas serotonin reuptake inhibitors can inhibit arousal and orgasm through their serotonergic effects.²

3. Prevalence of Sexual Dysfunctions³

Prevalence of Sexual Dysfunctions	
Disorder	Prevalence (%)
Female orgasmic disorder	5-30
Male orgasmic disorder	4-10
Premature ejaculation	35-38
Male erectile disorder	4-20

4. Aetiology

Kaplan (1974) argues for a multicausal theory of sexual dysfunctions on several levels (intrapsychic, interpersonal, and behavioural) and lists four factors as playing a role in the development of these disorders. They are: 1. misinformation or ignorance regarding sexual and social interaction, 2. unconscious guilt and anxiety concerning sex, 3. performance anxiety, as the most common cause of erectile and orgasmic dysfunctions, and 4. partners' failure to communicate to each other their sexual feelings and those behaviours which they want to engage in.

There are other factors also that lead to the development of a sexual dysfunction. There could be an unacknowledged homosexual orientation and attempts to function sexually with a person of the opposite sex. Some sexual dysfunctions lead to secondary sexual problems; for example, an individual who does not have erections or cannot achieve orgasm may develop a lack of sexual desire secondary to not experiencing any positive gratification from the sexual interaction. A number of sexual problems are related to sexual trauma. A history of incest, child sexual abuse, or rape may place

an individual at risk for developing sexual problems. Many sexual dysfunctions occur secondary to major psychiatric disorders such as schizophrenia, depression, and severe personality disorders. Physical, neurological, and physiological problems can lead to sexual dysfunction. The use of a single medication, or multiple medications, is one of the most common causes of sexual dysfunction.

Many cases of dysfunction involve both organic and psychogenic factors, especially in the case of an erectile disorder. A man may have a mild degree of organic impairment (e.g., due to diabetes or vascular insufficiency), fail several times at obtaining an erection, and become vulnerable to performance anxiety. In this case, treatment aimed at reducing the psychogenic factors may be sufficient to improve sexual functioning. Conversely, even if a man has evidence of psychological factors contributing to erectile disorder, it is still necessary to evaluate him for organic abnormalities.⁴

5. Differential Diagnosis

Patients with a sexual dysfunction should be medically evaluated by a gynaecologist or urologist to rule out treatable organic aetiologies. These organic factors may be local diseases of the genitals, vascular illnesses, neurological diseases, endocrine disorders, or systemic illness. It is good to ask the patients about medication and illegal drugs.

Psychophysiological procedures have been developed to assess one's erections. During rapid eye movement (REM) sleep, men experience penile erections defined as nocturnal penile tumescence (NPT). Though NPT measures can be equivocal, they help in evaluating a patient with erectile problems for organic factors (e.g., a man with 'psychogenic' impotence should have erections while sleeping, whereas a man with 'organic' impotence should not have an erection at any time). However, many men have both organic and psychological causes for erectile problems, and so the results of NPT testing must be interpreted cautiously. There occur vaginal vascular changes in women during REM sleep, and assessment techniques are being explored to evaluate these changes in women who have sexual dysfunctions.

A sexual dysfunction is characterized by a disturbance in the processes that characterize the sexual response cycle or by pain associated with sexual intercourse. The sexual response cycle is divided into four phases:

1. **Desire:** This phase consists of fantasies about sexual activity and the desire to have sexual activity.
2. **Excitement:** This phase consists of a subjective sense of sexual pleasure and accompanying physiological changes. The major changes in the male consist of penile tumescence and erection. The major changes in the female consist of vasocongestion in the pelvis, vaginal lubrication and expansion, and swelling of the external genitalia.
3. **Orgasm:** This phase consists of a peaking of sexual pleasure, with release of sexual tension and rhythmic contraction of the perineal muscles and reproductive organs. In the male, there is the sensation of ejaculatory inevitability, which is followed by ejaculation of semen. In the female, there are contractions (not always subjectively experienced as such) of the wall of the outer third of the vagina. In both genders, the anal sphincter rhythmically contracts.
4. **Resolution:** This phase consists of a sense of muscular relaxation and general well being. During this phase, males are physiologically refractory to further erection and orgasm for a variable period of time. In contrast, females may be able to respond to additional stimulation almost immediately.

Disorders of sexual response may occur at one or more of these four phases. It has not been specified in the criteria sets, a minimum frequency or range of settings, activities, or types of sexual encounters in which the dysfunction must occur. This is left to the clinician to make a judgement taking into account such factors as the age and experience of the individual, frequency and chronicity of the symptom, subjective distress, and effect on other areas of functioning.⁵

6. Subtypes

Subtypes are to be provided to indicate the onset, context, and etiological factors associated with the sexual dysfunctions. If multiple sexual dysfunctions are present, the appropriate subtypes for each has to be noted. However, these subtypes are not applied to a diagnosis of sexual dysfunction due to a general medical condition or substance-induced sexual dysfunction.

To indicate the nature of the onset of the sexual dysfunction:

Lifelong Type: This subtype applies if the sexual dysfunction has been present since the onset of sexual functioning.

Acquired Type: This subtype applies if the sexual dysfunction develops only after a period of normal functioning.

To indicate the context in which the sexual dysfunction occurs:

Generalized Type: This subtype applies if the sexual dysfunction is not limited to certain types of stimulation, situations, or partners.

Situational Type: This subtype applies if the sexual dysfunction is limited to certain types of stimulation, situations, or partners. Even though in most instances the dysfunctions occur during sexual activity with a partner, in some cases it may be appropriate to identify dysfunctions that occur during masturbation.

To indicate etiological factors associated with the sexual dysfunction:

Due to Psychological Factors: This subtype applies when psychological factors are judged to have the major role in the onset, severity, exacerbation, or maintenance of the sexual dysfunction, and general medical conditions and substances play no role in the aetiology of the sexual dysfunction.

Due to Combined Factors: This subtype applies when 1) psychological factors are judged to have a role in the onset, severity, exacerbation, or maintenance of the sexual dysfunction; and 2) a general medical condition or substance use is also judged to be contributory but is not sufficient to account for the sexual dysfunction. If a general medical condition or substance use (including medication side effects) is sufficient to account for the sexual dysfunction, sexual dysfunction due to a general medical condition and/or substance-induced sexual dysfunction are diagnosed.⁶

7. Sexual Desire Disorders

1) Hypoactive Sexual Desire Disorder

(DSM-IV Code: 302.71 & ICD-10 Code: F52.0)

Hypoactive sexual desire disorder (also known as inhibited sexual desire or ISD) is characterized by persistent or recurrent deficient sexual fantasies and desire for sexual activity. It is also important to determine whether hypoactive sexual desire is the primary problem or rather the consequence of another underlying sexual problem. Often, a male or female who is experiencing either inhibited sexual excitement or an orgasmic problem may develop

hypoactive sexual desire because sexual activity is not found to be reinforcing. It is also important to differentiate this disorder, in which there is an absence of sexual desire and fantasies, from sexual aversion, in which there is avoidance of sexual activity due to extreme anxiety.

(1) Diagnostic Criteria⁷

Diagnostic Criteria for Hypoactive Sexual Desire Disorder

- A. Persistently or recurrently deficient (or absent) sexual fantasies and desire for sexual activity. The judgement of deficiency or absence is made by the clinician, taking into account factors that affect sexual functioning, such as age and the context of the person's life.
- B. The disturbance causes marked distress or interpersonal difficulty.
- C. The sexual dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Specify Type: Lifelong Type or Acquired Type; Generalized Type or Situational Type; Due to Psychological Factors or Due to Combined Factors.

(2) Differential Diagnosis⁸

In Common with	Characteristics Shared	Exclusively characteristic of Hypoactive Sexual Desire Disorder or of the disorder with which it is compared or difference between the two disorders
Sexual Dysfunction Due to a General Medical Condition	Deficiency or absence of sexual fantasies and desire for sexual activity	Here it is exclusively due to a general medical condition
Substance-Induced Sexual Dysfunction	Deficiency or absence of sexual fantasies and desire for sexual activity	Here it is exclusively due to the physiological effects of a substance

(3) Treatment

Hypoactive sexual desire disorder is the most difficult of all the dysfunctions to treat. Testosterone has been used (in both men and women), however, masculinizing side effects make its use problematic in women. There is no consistent evidence that it is really useful both for men and women. The most effective treatments involve a combination of cognitive therapy to deal with maladaptive beliefs (e.g., that partners must always want sex at the same time), behavioural treatment (e.g., exercises to enhance sexual pleasure and communication), and marital therapy (e.g., to deal with the individual's use of sex to control the relationship).⁹

2) Sexual Aversion Disorder

(DSM-IV Code: 302.79 & ICD-10 Code: F52.10)

The essential feature of sexual aversion disorder is the aversion to, and active avoidance of, genital sexual contact with a sexual partner. The patient reports anxiety, fear, or disgust when confronted by a sexual opportunity with a partner. The aversion to genital contact may be focused on a particular aspect of sexual experience (e.g., genital secretions, vaginal penetration). Some experience generalized revulsion to all sexual stimuli, including kissing and touching. The intensity of the individual's reaction when exposed to the aversive stimulus may range from moderate anxiety and lack of pleasure to extreme psychological distress.

(1) Diagnostic Criteria¹⁰

Diagnostic Criteria for Sexual Aversion Disorder

- A. Persistent or recurrent extreme aversion to, and avoidance of, all (or almost all) genital sexual contact with a sexual partner.
- B. The disturbance causes marked distress or interpersonal difficulty.
- C. The sexual dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction).

Specify Type: Lifelong Type or Acquired Type; Generalized Type or Situational Type; Due to Psychological Factors or Due to Combined Factors.

(2) Differential Diagnosis¹¹

In Common with	Characteristics Shared	Exclusively characteristic of Sexual Aversion Disorder or of the disorder with which it is compared or difference between the two disorders
Another Axis I Disorder (e.g., Major Depressive Disorder, Obsessive-Compulsive Disorder, Post-traumatic Stress Disorder)	Sexual aversion	Here it is exclusively due to the presence of the disorders mentioned
Specific Phobia	Sexual aversion	Although sexual aversion may technically meet the criteria for specific phobia, this additional diagnosis is not given.
Occasional Sexual Aversion	Sexual aversion	It is not persistent or recurrent, or is not accompanied by marked distress or interpersonal difficulty

(3) Treatment

The goal of the treatment is to reduce the individual's fear and avoidance of sex. This can very well be accomplished through systematic desensitisation in which the patient is gradually exposed in imagination and then in vivo to the actual sexual situations that usually generate anxiety. There are also reports of successful treatment of sexual aversion disorder with tricyclic medications and sex therapy.

8. Sexual Arousal Disorders

1) Female Sexual Arousal Disorder

(DSM-IV Code: 302.72 & ICD-10 Code: F52.2)

(1) Diagnostic Criteria¹²

Diagnostic Criteria for Female Sexual Arousal Disorder

- A. Persistent or recurrent inability to attain, or to maintain until completion of the sexual activity, an adequate lubrication-swelling response of sexual excitement.

- B. The disturbance causes marked distress or interpersonal difficulty.
- C. The sexual dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g, a drug of abuse, a medication) or a general medical condition.

Specify Type: Lifelong Type or Acquired Type; Generalized Type or Situational Type; Due to Psychological Factors or Due to Combined Factors.

(2) Differential Diagnosis¹³

In Common with	Characteristics Shared	Exclusively characteristic of Female Sexual Arousal Disorder or of the disorder with which it is compared or difference between the two disorders
Sexual Dysfunction Due to a General Medical Condition	Lack of sexual arousal	Here the symptom is exclusively due to the physiological effects of a specified general medical condition (e.g., menopausal or post-menopausal reductions in estrogen levels, atrophic vaginitis, diabetes mellitus, radiotherapy of the pelvis).
Substance-Induced Sexual Dysfunction	Lack of sexual arousal	Here the symptom is exclusively due to the direct physiological effects of a substance (e.g, reduced lubrication caused by antihypertensives or antihistamines).

(3) Treatment

Treatment involves reduction of anxiety associated with sexual activity. Behaviour techniques such as those involving sensate focus exercise most often seem to be effective.

2) Male Erectile Disorder

(DSM-IV Code: 302.72 & ICD-10 Code: F52.2)

(1) Diagnostic Criteria¹⁴

Diagnostic Criteria for Male Erectile Disorder

- A. Persistent or recurrent inability to attain, or to maintain until completion of the sexual activity, an adequate erection.
- B. The disturbance causes marked distress or interpersonal difficulty.
- C. The erectile dysfunction is not better accounted for by another Axis I disorder (other than a Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Specify Type: Lifelong Type or Acquired Type; Generalized Type or Situational Type; Due to Psychological Factors or Due to Combined Factors.

(2) Differential Diagnosis¹⁵

In Common with	Characteristics Shared	Exclusively characteristic of Male Erectile Disorder or of the disorder with which it is compared or difference between the two disorders
Sexual Dysfunction Due to a General Medical Condition	Lack of erection	Here the symptom is exclusively due to the physiological effects of a specified general medical condition (e.g., diabetes mellitus, multiple sclerosis, renal failure, peripheral neuropathy, peripheral vascular disease, spinal cord injury, injury of the autonomic nervous system by surgery or radiation)
Substance-Induced Sexual Dysfunction	Lack of erection	Here the symptom is exclusively due to the direct physiological effects of a substance (e.g., antihypertensive medication, antidepressant medication, neuroleptic medication, a drug of abuse)

(3) Treatment

If the patient has a willing sexual partner to participate in therapy, it is easier to treat the erectile problems. It is also possible to treat someone without a partner's attendance. The main task of treatment is the use of behavioural assignments to gradually decrease performance anxiety. Sensate focus exercises are helpful in which the patient engages in nongenital, nondemand caressing with a partner and concentrates on pleasurable, genital sexual activities (e.g., touch, oral contact) with no penetration permitted until anxiety has been decreased sufficiently to permit full erectile function. One could also employ group therapy, hypnotherapy, and systematic desensitisation by reducing anxiety associated with being sexual. Psychodynamic interventions could be useful in alleviating intrapsychic conflicts contributing to performance anxiety. Couple therapy too can be beneficial.

Somatic treatments can be sufficiently helpful. Testosterone is administered in cases of erectile problems due to hypogonadism. Vasoactive injections into the corpora cavernosa can be successfully used. It is noted that the combination of traditional sex therapy techniques and these injections may be helpful even in cases of purely psychogenic erectile dysfunction.

Topical medications directly relax arterial smooth muscle in the penis. Oral medications such as yohimbine is found to be useful. A noninvasive, nonpharmacological treatment is an external vacuum device. The device has a plastic cylinder with one end open and the other end connected to a vacuum pump. A vacuum is created that draws blood into the penis. A tension ring is then slipped from the cylinder to the base of the penis for up to 30 minutes. For individuals with pure organic or combination organic-psychogenic impotence who do not respond to other treatment measures, penile prostheses either bendable silicone implant or an inflatable implant can be used.¹⁶

9. Orgasmic Disorders

1) Female Orgasmic Disorder (Formerly Inhibited Female Orgasm)

(DSM-IV Code: 302.73 & ICD-10 Code: F52.3)

Female orgasmic disorder is characterized by persistent or recurrent delay in or absence of, orgasm following a normal sexual

excitement phase. One should be aware that females exhibit great variability in both the type and the intensity of stimulation required to trigger an orgasm. It is also good to keep in mind the woman's age, sexual experience and the adequacy of sexual stimulation she receives.

(1) Diagnostic Criteria¹⁷

Diagnostic Criteria for Female Orgasmic Disorder

- A. Persistent or recurrent delay in, or absence of, orgasm following a normal sexual excitement phase. Women exhibit wide variability in the type or intensity of stimulation that triggers orgasm. The diagnosis of Female Orgasmic Disorder should be based on the clinician's judgement that the woman's orgasmic capacity is less than would be reasonable for her age, sexual experience, and the adequacy of sexual stimulation she receives.
- B. The disturbance causes marked distress or interpersonal difficulty.
- C. The orgasmic dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Specify Type: Lifelong Type or Acquired Type; Generalized Type or Situational Type; Due to Psychological Factors or Due to Combined Factors.

(2) Differential Diagnosis¹⁸

In Common with	Characteristics Shared	Exclusively characteristic of Female Orgasmic Disorder or of the disorder with which it is compared or difference between the two disorders
Sexual Dysfunction Due to a General Medical Condition	Lack of orgasm	Here the symptom is exclusively due to the physiological effects of a specified general medical condition (e.g., spinal cord lesion).
Substance-Induced Sexual Dysfunction	Lack of orgasm	Here the symptom is exclusively due to the physiological effects of a substance (e.g., antidepressants, benzodiazepines, neuroleptics, antihypertensives, opioids).

(3) Treatment

Through a programme of directed masturbation, a woman with anorgasmia (i.e., never having had an orgasm) can become orgasmic. First, any discomfort the individual may feel about exploring her own body should be discussed. Secondly, instructions should be given in a systematic programme for exercising the pubococcygeus muscle, a muscle involved in orgasms. Then follows a masturbatory programme that begins with a gradual visual and tactile exploration of her body and moves toward focused genital touching. The patient is also taught to combine sexual fantasies with stimulation. If the woman is unable to have an orgasm while doing these, then a vibrator can be used while engaging in focused genital touching. And now when the woman is able to have an orgasm through self-stimulation, she can very well teach her sexual partner (using sensate focus exercises) the type of genital stimulation she enjoys to have an orgasm.

If a woman suffers from situational anorgasmia, it is good to explore the relationship and involve her partner in treatment. Many women complain that they do not experience an orgasm through penile-vaginal intercourse. This may be due to lack of adequate stimulation both before and during intercourse, or not using various sexual positions that allow stimulation of the clitoris by the patient or her partner. When it is the question of letting go, then systematic desensitisation is helpful. Sometimes psychodynamic conflicts, religious concerns and personal beliefs regarding intercourse and sexual pleasure may interfere with obtaining orgasm.¹⁹

2) Male Orgasmic Disorder (Formerly Inhibited Male Orgasm)

(DSM-IV Code: 302.74 & ICD-10 Code: F52.3)

(1) Diagnostic Criteria²⁰

Diagnostic Criteria for Male Orgasmic Disorder

- A. Persistent or recurrent delay in, or absence of, orgasm following a normal sexual excitement phase during sexual activity that the clinician, taking into account the person's age, judges to be adequate in focus, intensity, and duration.
- B. The disturbance causes marked distress or interpersonal difficulty.

C. The orgasmic dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Specify Type: Lifelong Type or Acquired Type; Generalized Type or Situational Type; Due to Psychological Factors or Due to Combined Factors.

(2) Differential Diagnosis^{21s}

In Common with	Characteristics Shared	Exclusively characteristic of Male Orgasmic Disorder or of the disorder with which it is compared or difference between the two disorders
Sexual Dysfunction Due to a General Medical Condition	Lack of orgasm	Here the symptom is exclusively due to the physiological effects of a specified general medical condition (e.g., hyperprolactinemia)
Substance-Induced Sexual Dysfunction	Lack of orgasm	Here the symptom is exclusively due to the physiological effects of a substance (e.g., alcohol, opioids, antihypertensives, antidepressants, neuroleptics)
Sexual Dysfunction Not Otherwise Specified (e.g., ejaculation but without pleasurable orgasm; orgasm that occurs without ejaculation of semen or with seepage of semen rather than propulsive ejaculation)	Problem with orgasm	Here the symptoms are not considered the characteristics of male orgasmic disorder but rather the symptoms of sexual dysfunction not otherwise specified.

(3) Treatment

Usually the treatment for this disorder is the same as the one used for the female counterparts. The patient is told to masturbate as quickly as possible to ejaculation while fantasizing that his penis is inside his partner's vagina and ejaculating. The patient and his partner could also be taught sensate focus exercises. If the person masturbates in the presence of his partner, his partner could be instructed to place her hand over his to know how much of touching and what pressure are required. Then perhaps he could place his hand over hers, while she masturbates him to ejaculation. At last, she should sit astride him and stimulate him, eventually putting his penis in her vagina when he reaches the point of ejaculatory inevitability. If the individual is not comfortable to ejaculate in the presence of his partner, then he is given systematic desensitisation.²²

3) Premature Ejaculation

(DSM-IV Code: 302.75 & ICD-10 Code: F52.4)

(1) Diagnostic Criteria²³

Diagnostic Criteria for Premature Ejaculation

- A. Persistent or recurrent ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before the person wishes it. The clinician must take into account factors that affect duration of the excitement phase, such as age, novelty of the sexual partner or situation, and recent frequency of sexual activity.
- B. The disturbance causes marked distress or interpersonal difficulty.
- C. The premature ejaculation is not due exclusively to the direct effects of a substance (e.g., withdrawal from opioids).

Specify Type: Lifelong Type or Acquired Type; Generalized Type or Situational Type; Due to Psychological Factors or Due to Combined Factors.

(2) Differential Diagnosis²⁴

In Common with	Characteristics Shared	Exclusively characteristic of Premature Ejaculation or of the disorder with which it is compared or difference between the two disorders

Erectile Dysfunction Related to the Development of a General Medical Condition	Premature ejaculation	Here the individuals omit their usual strategies for delaying orgasm and some require prolonged noncoital stimulation to develop a degree of erection sufficient for penetration. These individuals may experience ejaculation immediately due to heightened sexual arousal
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(3) Treatment

The treatment requires that the patient tolerate high levels of excitement without ejaculating and in reducing the anxiety associated with sexual arousal. There are two successful techniques, namely start-stop and squeeze technique. In start-stop technique the patient lies on his back while his partner strokes his penis. The patient focuses on the pleasurable feelings resulting from the penile stimulation. When he feels that he is about to ejaculate, he signals his partner to stop stimulation. Likewise, this exercise is done at least four times before letting oneself to ejaculate. The squeeze technique can be done along with the start-stop technique. In this, the partner is taught to place her thumb on the frenulum of the penis and her first and second fingers on the opposite sides of the head of the penis. When he is about to ejaculate the partner squeezes for up to 5 seconds and then releases the penis for up to 30 seconds. This can be continued until the patient is no longer on the verge of ejaculating. Then the partner resumes penile stimulation. Somatic treatments too are prescribed which include intracavernous injection of papaverine and phentolamine and oral medications such as clomipramine.²⁵

10. Sexual Pain Disorders

1) Dyspareunia (Not Due to a General Medical Condition)

(DSM-IV Code: 302.76 & ICD-10 Code: F52.6)

(1) Diagnostic Criteria²⁶

Diagnostic Criteria for Dyspareunia	
A.	Recurrent or persistent genital pain associated with sexual intercourse in either a male or a female.
B.	The disturbance causes marked distress or interpersonal difficulty.

C.	The disturbance is not caused exclusively by Vaginismus or lack of lubrication, is not better accounted for by another Axis I disorder (except another Sexual Dysfunction), and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition. Specify Type: Lifelong Type or Acquired Type; Generalized Type or Situational Type; Due to Psychological Factors or Due to Combined Factors.
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(2) Differential Diagnosis²⁷

In Common with	Characteristics Shared	Exclusively characteristic of Dyspareunia or of the disorder with which it is compared or difference between the two disorders
Sexual Dysfunction Due to a General Medical Condition	Genital pain	Here the symptom is exclusively due to the physiological effects of a specified general medical condition (e.g., insufficient vaginal lubrication; pelvic pathology such as vaginal or urinary tract infections, vaginal scar tissue, endometriosis, or adhesions; postmenopausal vaginal atrophy; temporary estrogen deprivation during lactation; urinary tract irritation or infection; or gastrointestinal conditions)
Substance-Induced Sexual Dysfunction	Genital pain	Here the symptom is exclusively due to the direct physiological effects of a substance

(3) Treatment

In the first place it is necessary to have a comprehensive physical and gynaecological or urological examination conducted. If there is no organic pathology, the individual's fear and anxiety underlying sexual functioning needs to be investigated. Some cases of women respond favourably to systematic desensitisation.²⁸

2) Vaginismus (Not Due to a General Medical Condition)

(DSM-IV Code: 306.51 & ICD-10 Code: F52.5)

(1) Diagnostic Criteria²⁹

Diagnostic Criteria for Vaginismus

- A. Recurrent or persistent involuntary spasm of the musculature of the outer third of the vagina that interferes with sexual intercourse.
- B. The disturbance causes marked distress or interpersonal difficulty.
- C. The disturbance is not better accounted for by another Axis I disorder (e.g., Somatization Disorder) and is not due exclusively to the direct physiological effects of a general medical condition.

Specify Type: Lifelong Type or Acquired Type; Generalized Type or Situational Type; Due to Psychological Factors or Due to Combined Factors.

(2) Differential Diagnosis³⁰

In Common with	Characteristics Shared	Exclusively characteristic of Vaginismus or of the disorder with which it is compared or difference between the two disorders
Sexual Dysfunction Due to a General Medical Condition	Involuntary spasm of the musculature of the outer third of the vagina	Here the symptom is exclusively due to the physiological effects of a specified general medical condition (e.g., endometriosis, or vaginal infection)

(3) Treatment

Vaginismus can be diagnosed with certainty only through a gynaecological examination. There are some women who are anxious about sex and may experience muscular tightening and some pain during penetration and this is not considered vaginismus. It is good to start with desensitisation. There is another procedure of inserting dilators of graduated sizes. The individual or the partner can gradually insert a tampon or fingers until penile penetration

can be effected. It is good that the partner gently stroke her genitals and clitoris during the insertion procedure. Penile penetration could be effected with the partner lying on his back and the patient controlling the actual insertion and subsequent movement during intercourse.³¹

11. Sexual Dysfunction Due to a General Medical Condition

One can make a diagnosis of sexual dysfunction due to a general medical condition only if there is evidence from the history, physical examination, or laboratory findings of a general medical condition judged to be etiologically related to the sexual dysfunction.

1) Diagnostic Criteria³²

Diagnostic Criteria for Sexual Dysfunction Due to a General Medical Condition

- A. Clinically significant sexual dysfunction that results in marked distress or interpersonal difficulty predominates in the clinical picture.
- B. There is evidence from the history, physical examination, or laboratory findings that the sexual dysfunction is fully explained by the direct physiological effects of a general medical condition.
- C. The disturbance is not better accounted for by another mental disorder (e.g., Major Depressive Disorder).

Select code and term based on the predominant sexual dysfunction:

DSM-IV Code: 625.8 & ICD-10 Code: N94.8 Female Hypoactive Sexual Desire Disorder Due to...(indicate the general medical condition): if deficient or absent sexual desire is the predominant feature

DSM-IV Code: 608.89 & ICD-10 Code: N50.8 Male Hypoactive Sexual Desire Disorder Due to ...(indicate the general medical condition): if deficient or absent sexual desire is the predominant feature

DSM-IV Code: 607.84 & ICD-10 Code: N.48.4 Male Erectile Disorder Due to... (indicate the general medical condition) if male erectile dysfunction is the predominant feature

DSM-IV Code: 625.0 & ICD-10 Code: N.94.1 Female Dyspareunia Due to ...(indicate the general medical condition): if pain associated with intercourse is the predominant feature

DSM-IV Code: 608.89 & ICD-10 Code: N50.8 Male Dyspareunia Due to...(indicate the general medical condition): if pain associated with intercourse is the predominant feature

DSM-IV Code: 625.8 & ICD-10 Code: N94.8 Other Female Sexual Dysfunction Due to ... (indicate the general medical condition) if some other feature is predominant (e.g., Orgasmic Disorder) or no feature predominates

DSM-IV Code: 608.89 & ICD-10 Code: N50.8 Other Male Sexual Dysfunction Due to ... (indicate the general medical condition): if some other feature is predominant (Orgasmic Disorder) or no feature predominates

Code note: Include the name of the general medical condition on Axis I, e.g., 607.84 male Erectile Disorder Due to Diabetes Mellitus; also code the general medical condition on Axis III.

2) Differential Diagnosis³³

In Common with	Characteristics Shared	Exclusively characteristic of Sexual Dysfunction Due to a General Medical Condition or of the disorder with which it is compared or difference between the two disorders
Primary Sexual Dysfunction (with the subtype Due to Combined Factors)	Sexual dysfunction	Here psychological factors also play a role in the onset, severity, exacerbation, or maintenance of a sexual dysfunction.
Substance-Induced Sexual Dysfunction	Sexual dysfunction	Here there is evidence of recent or prolonged substance use (including medications), withdrawal from a substance, or exposure to a toxin, and that sexual dysfunction is fully explained by the direct effects of the substance.
Major Depressive Disorder	Hypoactive sexual desire; arousal dysfunction; and to a lesser extent, orgasmic dysfunction	In Major Depressive Disorder, no specific and direct causative pathophysiological mechanisms associated with a general medical condition can be demonstrated.

Diminished sexual interest and functioning that may accompany aging	Sexual dysfunction	Here the symptom is due to the aging process
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12. Substance-Induced Sexual Dysfunction

We diagnose substance-induced sexual dysfunction only if the patient has been using either medications or drugs that result in the impairment of sexual functioning, and the symptoms of the dysfunction are manifested either during use of the substance or within 6 weeks of cessation of the substance. Usually individuals who abuse drugs have a high rate (up to 60%) of sexual dysfunctions. In fact, drugs of abuse can impair sexual functioning through various mechanisms. For example, cocaine may impair sexual functioning because of its ability to deplete dopamine stores with chronic use. Chronic opiate and alcohol use interferes with endogenous dopamine and serotonin functioning and thus impairs sexual functioning.

1) Diagnostic Criteria³⁴

Diagnostic Criteria for Substance-Induced Sexual Dysfunction

- A. Clinically significant sexual dysfunction that results in marked distress or interpersonal difficulty predominates in the clinical picture.
- B. There is evidence from the history, physical examination, or laboratory findings that the sexual dysfunction is fully explained by substance use as manifested by either (1) or (2):
 - (1) The symptoms in Criterion A developed during, or within a month of, Substance Intoxication
 - (2) Medication use is etiologically related to the disturbance
- C. The disturbance is not better accounted for by a Sexual Dysfunction that is not substance induced. Evidence that the symptoms are better accounted for by a Sexual Dysfunction that is not substance induced might include the following: the symptoms precede the onset of the substance use or dependence (or medication use); the symptoms persist for a substantial period of time (e.g., about a month) after the cessation of intoxication, or are substantially in excess of what would be expected given the type or

amount of the substance used or the duration of use; or there is other evidence that suggests the existence of an independent non-substance-induced Sexual Dysfunction e.g., a history of recurrent non-substance-related episodes).

Note: This diagnosis should be made instead of a diagnosis of Substance Intoxication only when the sexual dysfunction is in excess of that usually associated with the intoxication syndrome and when the dysfunction is sufficiently severe to warrant independent clinical attention.

Code (Specific Substance)-Induced Sexual Dysfunction:

(291.8 Alcohol; 292.89 Amphetamine (or Amphetamine-Like Substance); 292.89 Cocaine; 292.89 Opioid; 292.89 Sedative, Hypnotic, or Anxiolytic; 292.89 Other (or Unknown) Substance)

Specify if:

With Impaired Desire or With Impaired Arousal or With Impaired Orgasm or With Sexual Pain

Specify if:

With Onset During Intoxication: if the criteria are met for Intoxication with the substance and the symptoms develop during the intoxication syndrome

2) Differential Diagnosis³⁵

In Common with	Characteristics Shared	Exclusively characteristic of Substance-Induced Sexual Dysfunction or of the disorder with which it is compared or difference between the two disorders
Substance Intoxication	Sexual dysfunctions	Here the dysfunction is proportionate to the intoxication and if it exceeds then it is a case of substance-induced sexual dysfunction.
Primary Sexual Dysfunction	Sexual dysfunctions	In substance-induced sexual dysfunction the symptoms are judged to be fully explained by the direct effects of a substance
Sexual Dysfunction Due to a General Medical Condition	Sexual dysfunctions	Here the symptom is caused by the physiological consequences of the general medical condition

13. Sexual Dysfunction Not Otherwise Specified

(DSM-IV Code: 302.70 & ICD-10 Code: F52.9)

In this category we include sexual dysfunctions that do not meet criteria for any specific Sexual Dysfunction. For example

1. No (or substantially diminished) subjective erotic feelings despite otherwise-normal arousal and orgasm
2. Situations in which the clinician has concluded that a sexual dysfunction is present but is unable to determine whether it is primary, due to a general medical condition, or substance induced.³⁶

14. Paraphilias

The paraphilias are characterized by experiencing, over a period of at least 6 months, recurrent intense sexual urges and sexually arousing fantasies that involve nonhuman objects or nonconsenting partners. These do not usually cause personal distress to individuals. The vast majority of the persons with these disorders are men. Individuals often have multiple paraphilias. More than 50% of the individuals with these disorders develop the onset of their paraphilic arousal before age 18 years.

Aetiology

Biological factors have been proposed. Destruction of parts of the limbic system in animals causes hypersexual behaviour. Temporal lobe diseases such as psychomotor seizures or temporal lobe tumours have been implicated in some persons with paraphilias. Abnormal levels of androgens may contribute to inappropriate sexual arousal. But the studies done on the above causes have not been conclusive.

According to psychoanalytic theories, severe castration anxiety during the Oedipal phase of development leads to the substitution of a symbolic object (inanimate, or an anatomical part) for the mother, as in fetishism and transvestism. Anxiety over arousal to the mother can lead to the choice of 'safe,' inappropriate sexual partners, as in pedophilia or zoophilia, or safe sexual behaviours in which there is no sexual contact, as in exhibitionism and voyeurism. It is also suggested by some psychoanalysts that a paraphilia represents an attempt by an individual to recreate and master early childhood punishment or humiliation. Some authors see deviant

sexual behaviour as an alternative to neurotic development, attributing it to ego acceptance of unrepressed infantile sexual fantasies.

Learning theorists say that sexual arousal develops when an individual engages in a sexual behaviour that is subsequently reinforced through sexual fantasies and masturbation. There are certain vulnerable periods (e.g., puberty) when the development of sexual arousal can occur. For example, if a young person puts on the clothes of a female person and feels aroused, he may develop arousal to wearing women's clothes (i.e., transvestism).

Paraphilias could be results of cognitive distortions. Distortions in thinking, or thinking errors, make an individual give himself/herself permission to engage in inappropriate or deviant sexual behaviours. For example, a man who is an exhibitionist said that his exposing his genitals to women is not harming them and it is not a terrorist act. This is a distorted thinking. It is also noted that many pedophiles have impaired social and adult heterosexual relationships.³⁷

Diagnosis

Some of the variations of sexual behaviours need not be taken for paraphilias. For example, some couples occasionally cross-dress to enhance their sexual arousal. Psychotic patients may cross-dress due to a delusional belief to hide one's sex; a manic may expose his penis to a women to arouse her; a person with dementia may masturbate in the presence of other people; a mentally retarded person may engage in a sexually inappropriate behaviour because of cognitive impairment, poor impulse control, and lack of sexual knowledge. Persons with antisocial personality disorders may commit deviant sexual acts as an overall disregard for societal norms and sanctions.³⁸

1) Exhibitionism³⁹

(DSM-IV Code: 302.4 & ICD-10 Code: F65,2)

In exhibitionism one exposes one's genitals to a stranger. Sometimes the individual masturbates while exposing (or while fantasizing exposing himself). There is generally no attempt at further sexual activity with the stranger. The onset of this disorder occurs before the age 18 years, although it can begin at a later age.

There was a man who used to stand under the bridge, expose his genitals and masturbate in full view of the women who were walking over the bridge.

Diagnostic Criteria for Exhibitionism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving the exposure of one's genitals to an unsuspecting stranger.
- B. The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

2) Fetishism⁴⁰

(DSM-IV Code: 302.81 & ICD-10 Code: F65.0)

In fetishism one uses nonliving objects (the 'fetish'). The most common fetish objects are women's underpants, bras, stockings, shoes, boots, or other wearing apparel. It might happen that the person masturbates while holding, rubbing, or smelling the fetish object or may ask the sexual partner to wear the object during their sexual encounters. Usually the object is required or strongly preferred for sexual excitement.

Diagnostic Criteria for Fetishism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving the use of nonliving objects (e.g., female undergarments).
- B. The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The fetish objects are not limited to articles of female clothing used in cross-dressing (as in Transvestic Fetishism) or devices designed for the purpose of tactile genital stimulation (e.g., a vibrator).

3) Frotteurism⁴¹

(DSM-IV Code: 302.89 & ICD-10 Code: F65.8)

In frotteurism one touches and rubs against a nonconsenting person. It might happen in crowded places (e.g., on busy sidewalks,

or in public transportation vehicles). The individual rubs his genitals against the victim's thighs and buttocks or fondles her genitalia or breasts with his hands. When he does this, he usually fantasizes an exclusive, caring relationship with the victim.

Diagnostic Criteria for Frotteurism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving touching and rubbing against a nonconsenting person.
- B. The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

4) Pedophilia⁴²

(DSM-IV Code: 302.2 & ICD-10 Code: F65.4)

Pedophilia involves sexual activity with a prepubescent child (generally age 13 years or younger). The paedophile must be age 16 years or older and at least 5 years older than the child. For individuals in late adolescence with pedophilia, no precise age difference is specified. Some paedophiles report an attraction to children of a particular age range; some prefer males, others females, and some like both sexes of children. The ones attracted to females usually prefer 8- to 10-year-olds, whereas those attracted to males usually prefer slightly older children. Usually female victims outnumber male victims. There are cases of individuals who are attracted only to children (exclusive type), whereas others are sometimes attracted to adults (nonexclusive type). The paedophiles limit their activities to undressing the child and looking, exposing themselves, masturbating in the presence of the child, or gentle touching and fondling of the child. Some perform fellatio or cunnilingus on the child, or penetrate the child's vagina, mouth, or anus with their fingers, foreign objects, or penis and use varying degrees of force to do so. Usually the children are prevented from disclosing the incident by threats. One client who was sexually abused by her father at the age of 10 told me that she feared that something would happen to her if she divulged the fact to her mother. The frequency of paedophilic behaviours may fluctuate with psychosocial stress. It is noted that the course is chronic, especially in those attracted to males.

Diagnostic Criteria for Pedophilia

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving sexual activity with a prepubescent child or children (generally age 13 years or younger).
- B. The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The person is at least age 16 years and at least 5 years older than the child or children in Criterion A.

Note: do not include an individual in late adolescence involved in an ongoing sexual relationship with a 12- or 13-year-old.

Specify if: Sexually Attracted to Males or Sexually Attracted to Females or Sexually Attracted to Both; Limited to Incest; Exclusive Type (attracted only to children) or Nonexclusive Type

5) Sexual Masochism⁴³

(DSM-IV Code: 302.83 & ICD-10 Code: F65.5)

Sexual masochism involves the act (real, not simulated) of being humiliated, beaten, bound, or otherwise made to suffer. Masochistic fantasies usually involve being raped while being held or bound by the other(s) so that there is no escape. Some act on the masochistic sexual urges by themselves (e.g., binding themselves, sticking themselves with pins, shocking themselves electrically, or self-mutilation) or with a partner. What is sought with a partner may include restraint (physical bondage), blindfolding (sensory bondage), paddling, spanking, whipping, beating, electrical shocks, cutting, 'pinning and piercing' (infibulation), and humiliation (e.g., being urinated or defecated on, being forced to crawl and bark like a dog, or being subjected to verbal abuse). Forced cross-dressing may be sought for its humiliating associations. One wishes to be treated as a helpless infant and clothed in diapers ('infantilism'). In 'hypoxiphilia' one seeks sexual arousal by oxygen deprivation obtained by means of chest compression, noose, ligature, plastic bag, mask, or chemical (often a volatile nitrite that produces a temporary decrease in brain oxygenation by peripheral vasodilation). These activities may be engaged in alone or with a partner.

Diagnostic Criteria for Sexual Masochism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving the act (real, not simulated) of being humiliated, beaten, bound, or otherwise made to suffer.
- B. The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

6) Sexual Sadism⁴⁴

(DSM-IV Code: ICD-10 Code: F65.5)

Sexual sadism involves acts (real, not simulated) in which the individual derives sexual excitement from the psychological or physical suffering (including humiliation) of the victim. Sadistic fantasies involve having complete control over the victim, who is terrified by anticipation of the impending act. Sometimes it may be acted on individuals with sexual masochism who willingly suffer pain or humiliation. Sometimes it is acted on nonconsenting victims. In every instance, it is the suffering of the victim that is sexually arousing. The sadistic activities may involve acts that indicate the dominance of the person over the victim (e.g., forcing the victim to crawl, or keeping the victim in a cage); or restraining, blindfolding, paddling, spanking, whipping, pinching, beating, burning, electrical shocks, rape, cutting, stabbing, strangulation, torture, mutilation, or killing. Sadistic sexual fantasies seem to originate in childhood itself, though the onset of these activities is variable; it is commonly evident by early adulthood. It is usually chronic and when coupled with antisocial personality disorder, the individuals may seriously injure or kill their victims.

Diagnostic Criteria for Sexual Sadism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving acts (real, not simulated) in which the psychological or physical suffering (including humiliation) of the victim is sexually exciting to the person.
- B. The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

7) Transvestic Fetishism⁴⁵

(DSM-IV Code: 302.3 & ICD-10 Code: F65.1)

Transvestic fetishism involves cross-dressing. Usually a male with this disorder keeps a collection of female clothes that he uses to cross-dress. When he is cross-dressed, he usually masturbates, imagining himself to be both the male subject and the female object of his sexual fantasy. This disorder is described only in heterosexual males. When cross-dressing occurs exclusively during the course of gender identity disorder transvestic fetishism is not diagnosed. When the patient is not cross-dressed, he is remarkably masculine. Although his basic preference is heterosexual, he tends to have few sexual partners and may have engaged in occasional homosexual acts. An associated feature may be the presence of sexual masochism. This disorder typically begins in childhood or early adolescence. It is likely that a favoured article of clothing may become erotic in itself and may be used habitually, first in masturbation and later in intercourse. For a few individuals, the gender dysphoria becomes a fixed part of the clinical picture and is accompanied by the desire to dress and live permanently as a female and to seek hormonal or surgical reassignment.

Diagnostic Criteria for Transvestic Fetishism

- A. Over a period of at least 6 months, in a heterosexual male, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving cross-dressing.
- B. The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:

With Gender Dysphoria: if the person has persistent discomfort with gender role or identity

8) Voyeurism⁴⁶

(DSM-IV Code: 302.82 & ICD-10 Code: F65.3)

Voyeurism involves the act of observing unsuspecting individuals, usually strangers, who are naked, in the process of disrobing, or engaging in sexual activity. The act of looking

(‘peeping’) is for the purpose of achieving sexual excitement, and generally no sexual activity with the observed person is sought. One may masturbate to orgasm during the voyeuristic activity; also one may masturbate later in response to the memory of what one has witnessed. Though the fantasy involves having sex with the observed person, in reality this rarely occurs. The onset of this behaviour is usually age 15 years and the course tends to be chronic.

Diagnostic Criteria for Voyeurism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving the act of observing an unsuspecting person who is naked, in the process of disrobing, or engaging in sexual activity.
- B. The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

9. Paraphilia Not Otherwise Specified

(DSM-IV Code: 302.9 & ICD-10 Code: F65.9)

This category is created for coding paraphilias that do not meet the criteria for any of the specific categories. For example we have telephone scatologia (obscene phone calls), necrophilia (corpses), partialism (exclusive focus on part of body), zoophilia (animals), coprophilia (faeces), klismaphilia (enemas), and urophilia (urine).

10) Treatment

Biological treatments have been traditionally used to correct pedophilia or exhibitionism. Since androgens play a major role in maintaining sexual arousal, treatments have focused on blocking or decreasing the level of circulating androgens. Antiandrogenic medications are used to treat sex offenders. The ones most used are the progestin derivatives medroxyprogesterone acetate (MPA) and cyproterone acetate (CPA). These only decrease libido and thus break the individual’s pattern of compulsive deviant sexual behaviour and do not change the direction of sexual drive toward appropriate adult partners. Fluoxetine is administered to treat patients who have sexual obsessions, addictions, and paraphilias.

Psychoanalysis and psychodynamic therapies are useful in some cases. Early conflicts, trauma, and humiliations are to be identified and resolved to remove the individual’s anxiety towards appropriate partners and enable one to give up the paraphilic fantasies. Various forms of aversive conditioning methods (e.g., noxious doors) and covert sensitisation methods could be used. In covert sensitisation method the individual pairs his/her inappropriate sexual fantasies with aversive, anxiety-provoking scenes, under the guidance of a therapist. There is a technique called satiation in which the individual uses his/her deviant fantasies in a repetitive manner to the point of satiating himself/herself with the deviant stimuli, in essence making the fantasies and behaviour boring. In behavioural treatments, skills training and cognitive restructuring are used to change the individual’s maladaptive beliefs. Treatment programmes that use comprehensive cognitive behavioural interventions, along with antiandrogens and psychological treatment are the most effective.⁴⁷

15. Gender Identity Disorders

1) Gender and Sexual Differentiation

It is at conception that the genetic sex of an individual is determined and the development from that point on is influenced by various factors. The gonads are undifferentiated for the first few weeks of gestation. If the Y chromosome is present in the embryo, the gonads will differentiate into testes. A substance referred to as the H-Y antigen is responsible for this transformation. If the y chromosome or H-Y antigen is not present in the developing embryo, the gonads will develop into ovaries.

If the gonads differentiate into testes, foetal androgen (i.e., testosterone) is secreted, and these structures develop into male genitalia (epididymis, vas deferens, ejaculatory ducts, penis, and scrotum). In the absence of foetal androgen, these structures develop into female genitalia (fallopian tubes, uterus, clitoris, and vagina). If foetal androgen is present in a genetically determined female (e.g., adrenal hyperplasia), male genitalia will develop, even in the presence of ovaries, and the child will be born with either ambiguous or male genitals. If foetal androgen is missing (e.g., testicular feminisation), female genitalia will develop even though the individual has the Y chromosome and testes.

'Gender identity' is an individual's perception and self-awareness of being male or female. 'Gender role' is the behaviour that an individual engages in that identifies him or her to others as being male or female (e.g., wearing dresses and makeup). 'Sexual orientation' is the erotic attraction that an individual feels (e.g., arousal to men, women, children, nonsexual objects, and so on).

Gender identity appears to develop in the early years of life and is generally established by age 3 years. Gender identity seems to depend on the sex in which an individual is reared, regardless of biological factors. This is borne out by the study of children born with genitalia that are ambiguous or opposite from their genetic sex. These children have been found to develop gender identity consistent with the gender assigned to them at birth. Gender identity once established is extremely resistant to change. If a child's physical appearance is ambiguous or if the caregivers are inconsistent in their view of the child as male or female, gender identity may not develop strongly, leading to possible 'change' or confusion regarding gender identity at a later time in life. Therefore gender identity develops between birth and age 3 years and depends on sex of rearing. Learning theory is of the opinion that gender identity begins to develop when the child imitates or identifies with same-sexed models. The child is then reinforced for this identification and for engaging in 'appropriate' sex-role behaviours. According to psychoanalytic theory, gender identity develops as part of overall identity formation in the phase of separation and individuation and is very much dependent on the quality of the mother-infant dyad. Later, during the Oedipal phase, gender role and sexual orientation are shaped.

In adolescents or adults, the symptoms of gender identity disorder include 1. a stated desire to be the opposite sex, 2. frequently 'passing' as the opposite sex, 3. a desire to live or be treated as a member of the opposite sex and 4. having the conviction that one experiences the typical feelings and reactions of the opposite sex.

2) Diagnostic Criteria⁴⁸

Diagnostic Criteria for Gender Identity Disorder

- A. A strong and persistent cross-gender identification (not merely a desire for any perceived cultural advantages of being the other sex).

In Children, the disturbance is manifested by four (or more) of the following:

- (1) Repeatedly stated desire to be, or insistence that he or she is, the other sex
- (2) In boys, preference for cross-dressing or simulating female attire; in girls, insistence on wearing only stereotypical masculine clothing
- (3) Strong and persistent preferences for cross-sex roles in make-believe play or persistent fantasies of being the other sex
- (4) Intense desire to participate in the stereotypical games and pastimes of the other sex
- (5) Strong preference for playmates of the other sex

In adolescents and adults, the disturbance is manifested by symptoms such as a stated desire to be the other sex, frequent passing as the other sex, desire to live or be treated as the other sex, or the conviction that he or she has the typical feelings and reactions of the other sex.

- B. Persistent discomfort with his or her sex or sense of inappropriateness in the gender role of that sex.

In children, the disturbance is manifested by any of the following: in boys, assertion that his penis or testes are disgusting or will disappear or assertion that it would be better not to have a penis, or aversion toward rough-and-tumble play and rejection of male stereotypical toys, games, and activities; in girls, rejection of urinating in a sitting position, assertion that she has or will grow a penis, or assertion that she does not want to grow breasts or menstruate, or marked aversion toward normative feminine clothing.

In adolescents and adults, the disturbance is manifested by symptoms such as preoccupation with getting rid of primary and secondary sex characteristics (e.g., request for hormones, surgery, or other procedures to physically alter sexual characteristics to simulate the other sex) or belief that he or she was born the wrong sex.

- C. The disturbance is not concurrent with a physical intersex condition.
- D. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Code based on current age:

DSM-IV Code: 302.6 & ICD-10 Code: F64.2 Gender Identity Disorder in Children

DSM-IV Code: 302.85 & ICD-10 Code: F64.0 Gender Identity Disorder in Adolescents or Adults

Specify if (for sexually mature individuals):

Sexually attracted to Males or Sexually attracted to Females or Sexually attracted to Both or Sexually attracted to Neither

3) Gender Identity Disorder of Adulthood

Gender identity disorders were first introduced in DSM-III and were included in the section on psychosexual disorders. In DSM-III-R, the gender identity disorders were moved to the section 'Disorders usually first evident in Infancy, Childhood, or Adolescence.' In DSM-III-R, gender identity disorder of adulthood: nontranssexual type was added. Up to this point, the essential features of the principal diagnostic categories in the subclass 'transsexualism' were a persistent sense of discomfort and inappropriateness about one's anatomical sense and a persistent wish to be rid of one's genitals and to live as a member of the other sex. In DSM-IV the term 'transsexualism' was removed. A single diagnostic term 'gender identity disorder,' exists for the childhood form and for the adult and adolescent form. However, the term transsexualism still appears to describe appropriately what is now referred to as gender identity disorder of adulthood. Transsexual individuals most commonly request 'sex reassignment,' that is change in their physical appearance (usually by hormonal and surgical means) to correspond with their self-perceived gender. But not all those who seek sex reassignment are transsexuals; cross-gender wishes may occur in transvestism (i.e., wearing opposite-gender clothes for erotic purposes) or effeminate homosexuality. Virtually all of the women who apply have a sexual orientation towards women. Male transsexuals are predominately homosexual in orientation, but approximately 25% are sexually attracted to women.

Among those adults who are diagnosed as having gender identity disorder, there is a high degree of concomitant psychiatric

disorder, most commonly borderline, antisocial, or narcissistic personality disorder.

The term 'gender dysphoria' has been used to characterize a person's sense of discomfort or unease about his or her status as male or female. Gender dysphoria has been classified as primary or secondary as it relates to transsexualism. Primary transsexuals have a lifelong, profound disturbance of core gender identity. They have histories of cross-dressing as children but never were aroused by wearing opposite-sex clothes. They usually have a clear history of engaging in opposite-sex gender-role behaviours. Secondary transsexuals also can have a long history of gender identity confusion; but their identity disturbance follows other cross-gender behaviour such as transvestism or effeminate homosexuality.⁴⁹

(1) Aetiology

Gender identity appears to be established and influenced by psychosocial factors during the first few years of life. According to learning theory models gender dysphoria arises from absent or inconsistent reinforcement for identification with same-sexed models. Cross-gender identification and behaviour take place, and these are reinforced with either overt or covert approval from the child's caregivers. According to psychoanalytic theory early deprivation of the male child by his mother leads to a symbiotic merger with the mother and lack of full individuation as a separate person. In the case of borderline personality disorder, this process leads to general identity confusion and loss of ego boundaries when the individual is under stress. In gender dysphoria, the defect is isolated to gender. Studies have noted that boys with gender identity disorder often have an overly close relationship with their mother and a distant, ambivalent relationship with their father. The boy who is excessively close to his mother, in the absence of the father, may have difficulty in separating himself from the female body and feminine behaviour.⁵⁰

(2) Treatment

Most gender dysphoric individuals have adamant requests for sex reassignment and they will not be satisfied by anything less than surgical change. The individuals are not amenable to counselling and psychotherapy. There are complications in surgery also especially medical. Psychotherapy after surgery is indicated to

help the patient adjust to the surgical changes and to discuss sexual functioning and satisfaction.⁵¹

4) Gender Identity Disorder of Childhood⁵²

It is often difficult to separate gender identity from gender role behaviour in children. Yet, in gender identity syndrome there is a repeated pattern of opposite-gender role behaviour accompanied by a disturbance in the child's perception of 'being' a boy or a girl. Children with gender identity problems express a desire to become a member of the opposite sex. Both sexes identify with role models of the opposite sex.

(1) Aetiology

The aetiology is the same as in adult gender dysphoria. Parents' indifference to or encouragement of opposite-sex behaviour, regular cross-dressing, lack of same sex playmates during the first years of socialization, excessive maternal protection, with inhibition of rough-and-tumble play and absence of or rejection by an older male early in life may additionally contribute to gender identity disorder of childhood in a male child.

(2) Treatment

Behaviour therapy as done to adults is helpful for children as well, reinforcing appropriate behaviours with tokens. Analytically oriented treatment deals with the family dynamics (e.g., a powerful, masculine-devaluing mother; an ineffective, emotionally absent father) and individual dynamics (e.g., castration anxiety following surgery) of the child. An eclectic approach to treatment has been advocated that involves the development of a close trusting relationship between a male therapist and the boy; stopping parental encouragement of feminine behaviours; interrupting the excessively close relationship between mother and son; enhancing the role of father and son; and reinforcing male behaviours.

5) Gender Identity Disorder Not Otherwise Specified

(DSM-IV Code: 302.6 & ICD-10 Code: F64.9)

This category is created for coding disorders in gender identity that are not classifiable as a specific Gender Identity Disorder. For example

1. Intersex conditions (e.g., androgen insensitivity syndrome or congenital adrenal hyperplasia) and accompanying gender dysphoria
2. Transient, stress-related cross-dressing behaviour
3. Persistent preoccupation with castration or penectomy without a desire to acquire the sex characteristics of the other sex

16. Sexual Disorder Not Otherwise Specified

(DSM-IV Code: 302.9 & ICD-10 Code: F52.9)

This category is created for coding a sexual disturbance that does not meet the criteria for any specific Sexual Disorder and is neither a Sexual Dysfunction nor a Paraphilia. For example

1. Marked feelings of inadequacy concerning sexual performance or other traits related to self-imposed standards of masculinity or femininity
2. Distress about a pattern of repeated sexual relationships involving a succession of lovers who are experienced by the individual only as things to be used
3. Persistent and marked distress about sexual orientation

17. Conclusion

Gender identity is learned in the cultural context. Once a certain identity as to who one is becomes fixed, then it is difficult to reverse this attitude. Therefore right from the very beginning it is necessary to bring up children with a clear concept as to who they are sexually. A wholesome attitude towards sex will go a long way in forming favourable attitude about themselves with regard to their gender identity.

10

EATING DISORDERS

1. Introduction

Incidents of anorexia nervosa were already reported in early Christian literature. Binge eating and purging behaviours are certainly known in Roman civilization. We can say that the eating disorders are entities or syndromes and not specific diseases with a common cause, common course, and common pathology. They are understood as syndromes and therefore are classified on the basis of the clusters of symptom they present. It is well-known that there is an interaction between psychology and physiology in the eating disorders. Eating behaviour reflects an interaction between an organism's physiological state and environmental conditions. The important physiological variables include the balance of various neuropeptides and neurotransmitters, metabolic state, metabolic rate, condition of the gastrointestinal tract, amount of storage tissue, and sensory receptors for taste and smell. Environmental conditions include features of the food such as taste, texture, novelty, accessibility, and nutritional composition, as well as other external conditions such as ambient temperature, presence of other people, and stress. It is useful to recognize the role of conditioned (learned) components in the initiation and termination of nutrient ingestion.¹

2. Anorexia Nervosa

(DSM-IV Code: 307.1 & ICD-10 Code: F50.0)

1) Diagnostic Criteria²

Diagnostic Criteria for Anorexia Nervosa

- A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g, weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).

- B. Intense fear of gaining weight or becoming fat, even though underweight.
- C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.
- D. In postmenarcheal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g., estrogen administration.)

Specify type:

Restricting Type: during the current episode of Anorexia Nervosa, the person has not regularly engaged in binge-eating or purging behaviour (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas)

Binge-Eating/Purging Type: during the current episode of Anorexia Nervosa, the person has regularly engaged in binge-eating or purging behaviour (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas)

2) Differential Diagnosis³

In Common with	Characteristics Shared	Exclusively characteristic of Anorexia Nervosa or of the disorder with which it is compared or difference between the two disorders
General Medical Conditions (e.g, gastrointestinal disease, brain tumours, occult malignancies, and AIDS)	Serious weight loss	Here these people do not have distorted body image and a desire for further weight loss

Superior mesenteric artery syndrome	Postprandial vomiting	Here it happens due to intermittent gastric outlet obstruction
Major Depressive Disorder	Severe weight loss	Here they do not have desire for excessive weight loss or excessive fear of gaining weight
Social Phobia, Obsessive-Compulsive Disorder & Body Dysmorphic Disorder	Embarrassed to eat in public, obsessions and compulsions related to food, imagined defect in bodily appearance	In anorexia nervosa these symptoms are restricted to food alone and so no additional diagnosis is made
Bulimia Nervosa	Avoidance of weight gain	Here they are able to maintain body weight at or above a minimally normal level

3) Aetiology

There is no specific aetiology and pathogenesis for anorexia nervosa. It begins after a period of severe food deprivation like for example 1. wilful dieting for the purpose of being more attractive, 2. wilful dieting for the purpose of being more professionally competent (e.g., ballet dancers, and gymnasts), 3. food restriction secondary to severe stress, 4. food restriction secondary to severe illness and /or surgery and 5. involuntary starvation.

Some think that this disorder constitutes a phobic avoidance response to food resulting from the sexual and social tension generated by the physical changes associated with puberty. Psychodynamic theories speak of fantasies of oral impregnation and dependent seductive relationships with warm, passive fathers and guilt over aggression towards ambivalently regarded mothers. According to some it is a cognitive and perceptual developmental defect. What is seen here are the disturbances of body image (denial of emaciation), disturbances in perception (lack of recognition or denial of fatigue, weakness, hunger), and a sense of ineffectiveness caused by untoward learning experiences. Some are of the opinion that disturbed hypothalamic function is the cause of this disorder.⁴

4) Treatment

A multifaceted treatment programme would be ideal in dealing with anorexia nervosa. The treatment should aim at restoring the patient's nutritional state to normal. The most effective form of behavioural therapy is the operant conditioning paradigm. Positive reinforcements are used, and consist of increased physical activity, visiting privileges, and social activities contingent on weight gain. Behaviour therapy could be used to stop vomiting. A response-prevention technique is used when bingeing and purging patients are required to stay in an observed dayroom area for 2-3 hours after every meal. Cognitive therapies could be used with the assessment of cognition as the first step. The patients could be asked to write down their thoughts to find out systematic distortions in the processing and interpretation of events. Cognitive techniques include operationalizing beliefs, decentering, using the 'what if' technique, evaluating 'autonomic thoughts,' testing prospective hypotheses, reinterpreting body image misperception, examining underlying assumptions, and modifying basic assumptions.⁵

3. Bulimia Nervosa

(DSM-IV Code: 307.51 & ICD-10 Code: F50.2)

1) Diagnostic Criteria⁶

Diagnostic Criteria for Bulimia Nervosa

- A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
 - (1) eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances
 - (2) a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)
- B. Recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.
- C. The binge eating and inappropriate compensatory behaviours both occur, on average, at least twice a week for 3 months.

- D. Self-evaluation is unduly influenced by body shape and weight.
 E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

Specify type:

Purging Type: during the current episode of Bulimia Nervosa, the person has regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas

Nonpurging Type: during the current episode of Bulimia Nervosa, the person has used other inappropriate compensatory behaviours, such as fasting or excessive exercise, but has not regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas

2) Differential Diagnosis⁷

In Common with	Characteristics Shared	Exclusively characteristic of Bulimia Nervosa or of the disorder with which it is compared or difference between the two disorders
Anorexia Nervosa, Binge-Eating / Purging Type	Binge-eating	If this occurs during anorexia nervosa, then no additional diagnosis of bulimia nervosa is made
Kleine-Levin Syndrome	Disturbed eating behaviour	Here overconcern with body shape and weight is not present
Major Depressive Disorder, With Atypical Features	Overeating	Here they do not have compensatory behaviour nor overconcern with body shape and weight
Borderline Personality Disorder	Binge-eating	If the full criteria for both disorders are met, both diagnoses can be given.

3) Aetiology

Rigid dieting is seen to be the precipitant of binge eating behaviour and a gross bingeing bout is seen as the most common precipitant for vomiting behaviour. The perceptions of hunger and of satiety are disturbed in patients who binge and purge.⁸

4) Treatment

Behaviour therapy, cognitive therapy, psychodynamic therapy and psycho-education therapy are being used with success. Cognitive restructuring is the basis of all the cognitive-behaviour therapy. Behaviour therapy is used specifically to stop the binge-eating/purging behaviours. Antidepressant medications have consistently shown some efficacy in the treatment of bulimia nervosa.⁹

4. Eating Disorder Not Otherwise Specified

(DSM-IV Code: 307.50 & ICD-10 Code: F50.9)

In this category are included disorders of eating that do not meet the criteria for any specific eating disorder. Examples are

1. For females, all of the criteria for Anorexia Nervosa are met except that the individual has regular menses.
2. All of the criteria for Anorexia Nervosa are met except that, despite significant weight loss, the individual's current weight is in the normal range.
3. All of the criteria for Bulimia Nervosa are met except that the binge eating and inappropriate compensatory mechanisms occur at a frequency of less than twice a week or for a duration of less than 3 months.
4. The regular use of inappropriate compensatory behaviour by an individual of normal body weight after eating small amounts of food (e.g., self-induced vomiting after the consumption of two cookies).
5. Repeatedly chewing and spitting out, but not swallowing, large amounts of food.
6. Binge-eating disorder: recurrent episodes of binge eating in the absence of the regular use of inappropriate compensatory behaviours characteristic of Bulimia Nervosa.

5. Obesity

Obesity is not classified as a psychiatric disorder but as a medical disorder. It is an excessive accumulation of body fat and

operationally is defined as being overweight. It is a disorder of energy balance, a disorder with a strong genetic component that is modulated by cultural and environmental influences. There is a definite familial component to obesity. For mild obesity (20%-40%), the most efficient treatment is behaviour modification in groups, a balanced diet, and exercise. Severe obesity (greater than 100% over a normal weight) is treated by surgical procedures that reduce the size of the stomach.¹⁰

6. Conclusion

We realize that the eating disorders are complex syndromes in which the interactions among environmental, psychological, and physiological factors both create and maintain the disturbed eating behaviour. Therefore the better we understand these three sectors the better will be our treatment programme for eating disorders.¹¹

1 1

ADJUSTMENT DISORDERS

1. Introduction

We can say that adjustment disorder is a subthreshold diagnosis that has undergone a major evolution since DSM-I in 1952. It presents major taxonomical and diagnostic dilemmas since it is a subthreshold diagnosis. There is a grey area of diagnoses that lie between normal behaviour and major disorders and it is there we find the subthreshold disorders which are often poorly defined, overlap with other diagnostic groupings, have indefinite symptomatology, and present problems of reliability and validity.

Historically, the concept of adjustment disorders included the notion of a transient situational disturbance initially (DSM-I & DSM-II) and then evolved to embody a disorder of adjustment characterized by mood, behaviour, or work (or academic) inhibition (DSM-III); then evolved to include physical complaints as well (DSM-III-R); and finally DSM-IV enhanced the language, described the time of the reaction to reflect duration: acute (less than 6 months) or chronic (6 months or longer), allowed for the continuation of the stressor for an indefinite period and eliminated the subtypes of mixed emotional features, work (or academic) inhibition, withdrawal, and physical complaints. In contrast to other DSM-IV disorders, adjustment disorder includes no clear and specific profile (or checklist) of symptoms that collectively constitutes a psychiatric (medical) syndrome or disorder.¹

2. Diagnostic Criteria²

Diagnostic Criteria for Adjustment Disorders

- A. The development of emotional or behavioural symptoms in response to an identifiable stressor(s) occurring within 3 months of the onset of the stressor(s).
- B. These symptoms or behaviours are clinically significant as evidenced by either of the following:

- (1) marked distress that is in excess of what would be expected from exposure to the stressor
- (2) significant impairment in social or occupational (academic) functioning
- C. The stress-related disturbance does not meet the criteria for another specific Axis I disorder, and is not merely an exacerbation of a preexisting Axis I or Axis II disorder
- D. The symptoms do not represent Bereavement.
- E. Once the stressor (or its consequences) has terminated, the symptoms do not persist for more than an additional 6 months.

Specify if:

Acute: if the disturbance lasts less than 6 months

Chronic: if the disturbance lasts for 6 months or longer

Adjustment Disorders are coded based on the subtype, which is selected according to the predominant symptoms. The specific stressor(s) can be specified on Axis IV.

(DSM-IV Code: 309.0 & ICD-10 Code: F43.20) With Depressed Mood

(DSM-IV Code: 309.24 & ICD-10 Code: F43.28) With Anxiety

(DSM-IV Code: 309.28 & ICD-10 Code: F43.22) With Mixed Anxiety and Depressed Mood

(DSM-IV Code: 309.3 & ICD-10 Code: F43.24) With Disturbance of Conduct

(DSM-IV Code: 309.4 & ICD-10 Code: F43.25) With Mixed Disturbance of Emotions and Conduct

(DSM-IV Code: 309.9 & ICD-10 Code: F43.9) Unspecified

3. Differential Diagnosis³

In Common with	Characteristics Shared	Exclusively characteristic of Adjustment Disorder or of the disorder with which it is compared or difference between the two disorders
Personality Disorders	Exacerbated by stress	If the exacerbation by stress is due to personality disorders additional diagnosis of adjustment disorder is not made

Posttraumatic Stress Disorder & Acute Stress Disorder	Presence of a psychosocial stressor	Here, in these cases, we need the presence of an extreme stressor and a specific constellation of symptoms; adjustment disorder needs just a stressor of any severity and may involve a wide range of possible symptoms
Bereavement	Reaction to a loss	In adjustment disorder the reaction is in excess of, or more prolonged than, what would be expected
Nonpathological reactions to stress	Reaction to stress	Here unlike in adjustment disorder, there is no marked distress in excess and does not cause significant impairment in social or occupational functioning

4. Treatment

Psychotherapeutic measures are the most suited for the treatment of adjustment disorders since psychotherapies reduce stressors and enhance coping with the stressors that cannot be reduced or removed and establish a support system to maximize adaptation. It is good to note significant dysfunction(s) secondary to a stressor and help the patient to moderate this imbalance. In this line, many stressors may be avoided or minimized. For example, the patient need not take more responsibility than can be managed by him/her or undertake activities that may invite criminal charges. In some cases the patient may be overreacting to a stressor, as when one thinks that approval by the most significant person in his/her life is an absolute need. The patient may also attempt suicide or become reclusive. The therapist could attempt to help the patient put his/her feelings and rage into words rather than into destructive actions and assist more optimal adaptation and mastery of the trauma-stressor.

The therapist could also clarify and interpret the meaning of the stressor for the patient. For example, rejection by a significant one does not imply the destruction of one's whole life. Counselling, psychotherapies, crisis intervention, family therapies and group treatment are the various ways employed to encourage the

verbalization of fears, anxiety, rage, helplessness and hopelessness to the stressors imposed. These techniques should expose the concerns and conflicts that the patient is experiencing, identify the means to reduce the stressors, enhance the patient's coping skills, and help the patient gain perspective on the adversity and establish relationships (i.e., a support network) to assist in the management of the stressors and the self. Talking out seems to be the primary treatment for adjustment disorders. In some cases small doses of antidepressants and anxiolytics may be useful. In spite of all these, if the condition worsens, then it is critical to review the diagnosis for the presence of a major disorder. The prognosis is good for adults; but for adolescents many major psychiatric illnesses seem to occur eventually.⁴

5. Conclusion

The upper threshold is established by the criteria for the major syndromes but the lower threshold between an adjustment disorder and problem/normality is undesignated with operational criteria. Regardless of their position on the diagnostic tree, subthreshold syndromes can involve significant psychopathology that needs to be recognized and treated (e.g., suicidal ideation/behaviour). Since the pharmacological studies are currently inconclusive, it is better to use extreme caution with drug use for the treatment of adjustment disorders. It is better to be cautious and delay psychotropic drug administration rather than subject the patient to the risk of unfavourable drug-psychotropic drug interaction. The condition may resolve or evolve into a major psychiatric illness and then be treated accordingly.⁵

1 2

FACTITIOUS DISORDERS

1. Introduction

Factitious disorder is characterized by a person intentionally fabricating signs or symptoms of illnesses solely to become identified as 'ill' or as a 'patient.' It can cause significant morbidity and mortality. In somatoform disorders, the physical symptoms are produced unconsciously whereas in factitious disorders physical and psychological symptoms and signs are produced intentionally.

2. Diagnostic Criteria¹

Diagnostic Criteria for Factitious Disorder

- A. Intentional production or feigning of physical or psychological signs or symptoms.
- B. The motivation for the behaviour is to assume the sick role.
- C. External incentives for the behaviour (such as economic gain, avoiding legal responsibility, or improving physical well-being, as in Malingering) are absent.

Code based on type:

(DSM-IV Code: 300.16 & ICD-10 Code: F68.1) With Predominantly Psychological Signs and Symptoms: if psychological signs and symptoms predominate in the clinical presentation

(DSM-IV Code: 300.19 & ICD-10 Code: F68.1) With Predominantly Physical Signs and Symptoms: if physical signs and symptoms predominate in the clinical presentation

(DSM-IV Code: 300.19 & ICD-10 Code: F68.1) With Combined Psychological and Physical Signs and Symptoms: if both psychological and physical signs and symptoms are present but neither predominates in the clinical presentation

3. Differential Diagnosis²

In Common with	Characteristics Shared	Exclusively characteristic of Factitious Disorders or of the disorder with which it is compared or difference between the two disorders
True general medical condition and True mental disorder	Physical or mental disorder	In factitious disorders there will be an atypical or dramatic presentation that does not conform to an identifiable general medical condition or mental disorder and symptoms or behaviour are present only when the individual is being observed
Somatoform Disorders	Physical complaints	Here the symptoms are not intentionally produced.
Malingering	Physical or mental symptoms	Here the symptom is produced by external incentive like obtaining compensation, evade the police or simply 'get a bed for the night.'

4. Aetiology

Psychodynamic theorists have noted the apparent prevalence of histories of early childhood physical or sexual abuse, with disturbed parental relationships and emotional deprivation. There might have been histories of early illnesses or extended hospitalisations. According to Nadelson (1985) it is a manifestation of borderline character pathology rather than an isolated clinical syndrome. The patient becomes both the 'victim and victimizer' by garnering medical attention from physicians and other health caregivers while defying and devaluing them. Projection of hostility and worthlessness onto the caretaker occurs as caretaker is both desired and rejected. According to Plassmann (1994b, 1994c) it is a 'symptom of a psychic problem complex.' Early traumas are dealt with narcissistically and through dissociation, denial, and a type of projection.³

5. Treatment

It is good to examine the treatment team for countertransference reactions, since the patient is likely to induce a countertransference identification in the physician. The patient needs to be helped to acknowledge this deception.⁴

6. Factitious Disorder Not Otherwise Specified

(DSM-IV Code: 300.19 & ICD-10 Code: F68.1)

In this category are included disorders with factitious symptoms that do not meet the criteria for Factitious Disorder. An example is factitious disorder by proxy: the intentional production or feigning of physical or psychological signs or symptoms in another person who is under the individual's care for the purpose of indirectly assuming the sick role.

The essential feature is the deliberate production or feigning of physical or psychological signs or symptoms in another person who is under the individual's care. Typically the victim is a young child and the perpetrator is the child's mother. The motivation for the perpetrator's behaviour is presumed to be a psychological need to assume the sick role by proxy. Here there are no external incentives like economic gain. The behaviour is not better accounted for by another mental disorder. Most cases of induced and simulated conditions involve the gastrointestinal, the genitourinary, and the central nervous systems. Simulation of mental disorders is less frequent. The victim usually is a preschool child, although newborns, adolescents, and adults may be used as 'victims.' Older children may collaborate with the perpetrator.⁵

7. Research Criteria for Factitious Disorder by Proxy⁶

Research Criteria for Factitious Disorder by Proxy

- A. Intentional production or feigning of physical or psychological signs or symptoms in another person who is under the individual's care.
- B. The motivation for the perpetrator's behaviour is to assume the sick role by proxy.
- C. External incentives for the behaviour (such as economic gain) are absent.
- D. The behaviour is not better accounted for by another mental disorder.

1) Warning Signs of Factitious Disorder by Proxy

1. The patient has taken the child to numerous caregivers, resulting in multiple diagnostic evaluations.
2. The parent seems overly attentive to or overly involved in the child's medical care or with the medical staff.
3. The other parent (usually the father) is notably uninvolved.
4. The parent seems less concerned than the physicians or medical staff about painful or risky diagnostic tests for the child.
5. The child persistently fails to tolerate or respond to usual medical therapies.
6. Signs and symptoms abate or do not occur when the child is separated from the parent.
7. Another child in the family has had unexplained illness or childhood death.
8. The parent has a history of factitious disorder or unusual obstetrical complications.⁷

2) Aetiology

Some researchers see the maternal pathology arising from childhood roots, characterized by 'quietly traumatic' emotional neglect and abandonment.⁸

3) Treatment

Patients (mothers) diagnosed with factitious disorder by proxy are very resistant and difficult to treat because of their use of denial and projective identification. Because of the necessity to protect the proxy, it is good to remove the child from the home. Individual treatment is long-term psychotherapy (group, individual, or combined), and focuses on helping the mother express feelings and needs for support and recognition more directly, with less use of projection and a development of empathic capacity. Pharmacotherapy can be used only to treat comorbid conditions. If there is no effective treatment, which is usually a coordination of multidisciplinary and multiagency involvement, the prognosis is poor. In developed countries the treatment programme is coordinated and directed through the legal system and involvement

of child protection authorities and the removal of the child from the home.⁹

8. Conclusion

Factitious disorders are intentionally produced. Because of the mind body relationship and due to the effect of autosuggestion, one gets an illness to assume a 'sick' role. Even though there is no apparent motive other than to assume a 'sick' role, we need to enquire what makes an individual take to such a behaviour. Here the psychodynamic therapies will be of use to uncover early childhood experiences bearing on the problem.

1 3

DELIRIUM, DEMENTIA, AND AMNESTIC AND OTHER COGNITIVE DISORDERS

1. Introduction

This chapter includes four sections namely Delirium, Dementia, Amnestic Disorders, and Cognitive Disorder Not Otherwise Specified. The predominant disturbance is a clinically significant deficit in cognition or memory that represents a significant change from a previous level of functioning. For each disorder in this chapter, the aetiology is either a general medical condition (although the specific general medical condition may not be identifiable) or a substance (i.e., a drug of abuse, medication, or toxin), or a combination of these factors. These disorders were placed in DSM-III-R, under the title 'Organic Mental Syndromes and Disorders.' These disorders are grouped into three sections in DSM-IV, namely 1. Delirium, Dementia, and Amnestic and Other Cognitive Disorders, 2. Mental Disorders Due to a General Medical Condition, and 3. Substance-Related Disorders.

2. Delirium

The disorders in this section share a common symptom presentation of a disturbance in consciousness and cognition, but are differentiated based on aetiology, and thus we have: Delirium Due to a General Medical Condition, Substance-induced Delirium (including medication and side effects), and Delirium Due to Multiple Aetiologies. Besides, we also have Delirium Not Otherwise Specified.

Delirium is one of the first mental disorders described in medicine and a common psychiatric syndrome found in clinical setting. It is mostly common among elderly people. People with

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dementia or brain damage have a lower threshold for developing delirium and with greater frequency. A variety of physiological insults (e.g., infections, CNS pathology, hypoxemia, deficiencies, endocrinopathies, toxins/drugs and metals) can produce the delirium syndrome. It can express itself as hypoactive state (i.e., decreased arousal and psychomotor activity), hyperactive state (i.e., increased arousal and psychomotor activity), or a mixed form with fluctuations between hypoactive and hyperactive states.

There are a number of terms to describe delirium. In DSM-I and DSM-II, it was described as 'acute (reversible) organic brain syndrome' of either a psychotic or a nonpsychotic type. In DSM-III it was grouped with other 'global' disorders of cognitive function, such as dementia; and its core or essential features were listed as 'clouding of consciousness' and 'disorientation and memory impairment.' In DSM-III-R, the core aspect was changed to 'reduced ability to maintain attention to external stimuli' and 'disorganized thinking.' In DSM-IV, different clinical presentations (i.e., hypoactive, hyperactive, and mixed states) are considered aspects of the one and the same entity called delirium.

Patients on high risk for developing delirium are: elderly patients, postcardiotomy patients, burn patients, patients with cognitive dysfunction, patients in drug withdrawal, patients with acquired immune deficiency syndrome (AIDS) and patients with a high illness burden.¹

1) Diagnostic Criteria

Clinical features of delirium are 1. prodrome (restlessness, anxiety, sleep disturbance, irritability) and rapid onset, 2. rapid fluctuating course, 3. attention decreased (easily distractible), 4. altered arousal and psychomotor abnormality, 5. Disturbance of sleep-wake cycle, 6. impaired memory (cannot register new information), 7. disorganized thinking and speech, 8. disorientation (to time and place but rarely to person), 8. perception altered (misperceptions, illusions, delusions [poorly formed], hallucinations), 9. neurological abnormalities, and 10. other features (sadness, irritability, anger, or euphoria).

2) Differential Diagnosis²

In Common with	Characteristics Shared	Exclusively characteristic of Delirium or of the disorder with which it is compared or difference between the two disorders
Dementia	Memory is impaired	Patients with dementia are alert and do not have disturbance in consciousness
Substance Intoxication or Substance Withdrawal	Memory is impaired	In substance intoxication delirium or substance withdrawal delirium, the symptoms are in excess
Brief Psychotic Disorder; Schizophrenia; Schizophreniform Disorder; other Psychotic Disorders; and Mood disorders With Psychotic Features	Vivid hallucinations, delusions, language disturbances, and agitation	In delirium: the psychotic symptoms fluctuate, are fragmented and unsystematized; and has memory impairment and disorientation which these five disorders do not have

3) Delirium Due to a General Medical Condition³

(DSM-IV Code: 293.0 & ICD-10 Code: F05.0)

Diagnostic Criteria for Delirium Due to ... (Indicate the General Medical Condition)

- A. Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention.
- B. A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia.
- C. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.

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- D. There is evidence from the history, physical examination, or laboratory findings that the disturbance is caused by the direct physiological consequences of a general medical condition.

Coding note: if delirium is superimposed on a preexisting dementia of the Alzheimer's Type or Vascular Dementia, indicate the delirium by coding the appropriate subtype of the dementia, e.g., 290.3 Dementia of the Alzheimer's Type, With Late Onset, With Delirium.

Coding note: Include the name of the general medical condition on Axis I, e.g., 293.0 Delirium Due to Hepatic Encephalopathy; also code the general medical condition on Axis III.

4) Substance-Induced Delirium

(1) Substance Intoxication Delirium⁴

Diagnostic Criteria for Substance Intoxication Delirium

- A. Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention.
- B. A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia.
- C. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.
- D. There is evidence from the history, physical examination, or laboratory findings of either (1) or (2):
 - (1) the symptoms in Criteria A and B developed during Substance Intoxication
 - (2) medication use is etiologically related to the disturbance*

Note: This diagnosis should be made instead of a diagnosis of Substance Intoxication only when the cognitive symptoms are in excess of those usually associated with the intoxication syndrome and when the symptoms are sufficiently severe to warrant independent clinical attention.

*Note: The diagnosis should be recorded as Substance-Induced Delirium if related to medication use.

Code (Specific Substance) Intoxication Delirium:

(DSM-IV Code: 291.0 & ICD-10 Code: F10.03) Alcohol; (DSM-IV Code: 292.81 & ICD-10 Code: F15.03) Amphetamine (or Amphetamine-Like Substance); (DSM-IV Code: 292.81 & ICD-10 Code: F12.03) Cannabis; (DSM-IV Code: 292.81 & ICD-10 Code: F14.03) Cocaine; (DSM-IV Code: 292.81 & ICD-10 Code: F16.03) Hallucinogen; (DSM-IV Code: 292.81 & ICD-10 Code: F18.03) Inhalant; (DSM-IV Code: 292.81 & ICD-10 Code: F11.03) Opioid; (DSM-IV Code: 292.81 & ICD-10 Code: F19.03) Phencyclidine (or Phencyclidine-Like Substance); (DSM-IV Code: 292.81 & ICD-10 Code: F13.03) Sedative, Hypnotic, or Anxiolytic; (DSM-IV Code: 292.81 & ICD-10 Code: F19.03) Other (or Unknown) Substance (e.g., cimetidine, digitalis, benztropine)

(2) Substance Withdrawal Delirium⁵

Diagnostic Criteria for Substance Withdrawal Delirium

- A. Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention.
- B. A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia.
- C. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.
- D. There is evidence from the history, physical examination, or laboratory findings that the symptoms in Criteria A and B developed during, or shortly after, a withdrawal syndrome.

Note: This diagnosis should be made instead of a diagnosis of Substance Withdrawal only when the cognitive symptoms are in excess of those usually associated with the withdrawal syndrome and when the symptoms are sufficiently severe to warrant independent clinical attention.

Code (Specific Substance) Withdrawal Delirium:

(DSM-IV Code: 291.0 & ICD-10 Code: 10.4) Alcohol; (DSM-IV Code: 292.81 & ICD-10 Code: F13.4) Sedative, Hypnotic, or Anxiolytic; (DSM-IV Code: 292.81 & ICD-10 Code: F19.03) Other (or Unknown) Substance

5) Delirium Due to Multiple Aetiologies⁶

This category is meant to alert one to the common situation in which the delirium has more than one aetiology. For example, there may be more than one general medical condition etiologically related to the delirium (e.g., Delirium Due to Hepatic Encephalopathy, Delirium Due to Head Trauma), or the delirium may be due to the combined effects of a general medical condition (e.g., viral encephalitis) and substance use (e.g., Alcohol Withdrawal). Since this category does not have its own separate code, it should not be recorded as a diagnosis. Since more than one aetiology is there, the clinician should list the codes of both the aetiologies.

Diagnostic Criteria for Delirium Due to Multiple Aetiologies

- A. Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention.
- B. A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia.
- C. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.
- D. There is evidence from the history, physical examination, or laboratory findings that the delirium has more than one aetiology (e.g., more than one etiological general medical condition, a general medical condition plus Substance Intoxication or medication side effect).

Coding note: use multiple codes reflecting specific delirium and specific aetiologies, e.g., 293.0 Delirium Due to Viral Encephalitis; 291.0 Alcohol Withdrawal Delirium.

6) Delirium Not Otherwise Specified

(DSM-IV Code: 780.09 & ICD-10 Code: F05.9)

This category is provided to diagnose a delirium that does not meet criteria for any of the specific types of delirium described in this section. Examples are

1. A clinical presentation of delirium that is suspected to be due to a general medical condition or substance use but for which there is insufficient evidence to establish a specific aetiology
2. Delirium due to causes not listed in this section (e.g., sensory deprivation)

7) Treatment

There are two things to be managed in treatment: First, the underlying medical condition causing the delirium should be found out. Secondly, the inappropriate behaviours that endanger medical care should be treated. Though medication is used, there is no consensus concerning whether delirium should be treated pharmacologically. Of course, psychosocial support is very much needed. Environmental interventions are sometimes helpful like placing a clock, calendar, familiar objects in the room and thus reorient the patient to date and surroundings.⁷

3. Dementia

Dementia is a syndrome of acquired, persistent intellectual impairment with compromised function in multiple spheres of mental activity, such as memory, language, visuospatial skills, emotion or personality, and cognition. It affects 5%-8% of individuals older than age 65, 15%-20% of individuals older than age 75, and 25%-50% of individuals older than age 85. The dementing disorders can be categorized into cortical and subcortical types. The cortical dementias reflect dysfunction of the cerebral cortex and are characterized by amnesia, aphasia, apraxia, and agnosia. For example, Alzheimer's disease is a cortical dementia. The subcortical dementias are caused by dysfunction of the deep grey and deep white matter structures, including the basal ganglia, thalamus, brain stem nuclei, and frontal lobe projections of these structures. Injury to subcortical structures often disrupts arousal, attention, motivation, and the rate of information processing; and this is seen as psychomotor retardation, defective recall, poor abstraction and strategy formation, and mood and personality alterations such as depression and apathy. Subcortical dementias include human immunodeficiency virus (HIV) disease, Huntington's disease, and Parkinson's disease.

1) Diagnostic Criteria

It is not normal aging that we find in patients with dementia but the impact of significant brain pathology. Therefore there is a difference in memory decline in normal aging and in dementia. The diagnostic criteria for age-associated memory impairment (AAMI) are: 1. patients at least 50 years of age, 2. subjective complaints of gradual onset of memory dysfunction in daily life activities (e.g., difficulty remembering names, misplacing objects, forgetting phone numbers), 3. psychometric evidence of memory failure, as measured by a performance at least one standard deviation below the mean established for young adults on a well-standardized test, 4. intact global intellectual function, 5. absence of dementia, 6. absence of any current or past medical, neurological, or psychiatric illness known to produce cognitive impairment, including the effects of psychotropic or other medications, drug or alcohol use, and any history of head trauma resulting in a period of unconsciousness for 1 hour or more.⁸

2) Differential Diagnosis⁹

In Common with	Characteristics Shared	Exclusively characteristic of Dementia or of the disorder with which it is compared or difference between the two disorders
Delirium	Memory being impaired	Symptoms in delirium fluctuate; but symptoms in dementia are relatively stable. In dementia multiple cognitive impairments persist in an unchanged form for more than a few months
Amnestic Disorder	Memory impairment	Here there are no impairments of cognitive functioning (i.e., aphasia, apraxia, agnosia, or disturbances in executive functioning)
Schizophrenia	Memory impairment	Here the symptom is less severe and has earlier age at onset
Major Depressive Disorder	Memory impairment	In dementia there is usually a premorbid history of declining cognitive function but in major depressive episode there is relatively normal premorbid state and abrupt cognitive decline associated with the depression

3) Dementia of Alzheimer's Type

Alois Alzheimer reported in 1907 a peculiar disease of the cerebral cortex in a 51-year-old woman. The woman displayed the clinical and pathological features of the dementing illness. She exhibited a progressive, deteriorating course, memory loss, delusions of persecution and jealousy, hiding of objects, disorientation, naming difficulties, paraphasias, and a tendency to perseverate. At the time of her death, she was stuporous and lay in bed with her legs drawn into a foetal position. Autopsy revealed brain atrophy without macroscopic lesions. Microscopic inspection showed the neurofibrillary tangles and 'miliary foci' (plaques) associated with Alzheimer's disease. This illness is named after Alzheimer. This is also called Dementia of the Alzheimer's Type (DAT).

Diagnostic Criteria for Dementia of the Alzheimer's Type¹⁰

- A. The development of multiple cognitive deficits manifested by both
 - (1) memory impairment (impaired ability to learn new information or to recall previously learned information)
 - (2) one (or more) of the following cognitive disturbances:
 - (a) aphasia (language disturbance)
 - (b) apraxia (impaired ability to carry out motor activities despite intact motor function)
 - (c) agnosia (failure to recognize or identify objects despite intact sensory function)
 - (d) disturbance in executive functioning (i.e., planning, organizing, sequencing, abstracting)
- B. The cognitive deficits in Criteria A1 and A2 each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.
- C. The course is characterized by gradual onset and continuing cognitive decline.
- D. The cognitive deficits in Criteria A1 and A2 are not due to any of the following:
 - (1) other central nervous system conditions that cause progressive deficits in memory and cognition (e.g., cerebrovascular disease, Parkinson's disease, Huntington's disease, subdural hematoma, normal-pressure hydrocephalus, brain tumour)

(2) systemic conditions that are known to cause dementia (e.g., hypothyroidism, vitamin B₁₂ or folic acid deficiency, niacin deficiency, hypercalcemia, neurosyphilis, HIV infection)

(3) substance-induced conditions

- E. The deficits do not occur exclusively during the course of a delirium.
- F. The disturbance is not better accounted for by another Axis I disorder (e.g., Major Depressive Disorder, Schizophrenia).

Code based on type of onset and predominant features:

With Early Onset: if onset is age 65 years or below

(DSM-IV Code: 290.11 & ICD-10 Code: F00.—) With Delirium: if delirium is superimposed on the dementia

(DSM-IV Code: 290.12 & ICD-10 Code: F00.11) With Delusions: if delusions are the predominant feature

(DSM-IV Code: 290.13 & ICD-10 Code: F00.13) With Depressed Mood: if depressed mood (including presentations that meet full symptom criteria for a Major Depressive Episode) is the predominant feature. A separate diagnosis of Mood Disorder Due to a General Medical Condition is not given.

(DSM-IV Code: 290.10 & ICD-10 Code: F00.00) Uncomplicated: if none of the above predominate in the current clinical presentation

With late Onset: if onset is after age 65 years

(DSM-IV Code: 290.3 & ICD-10 Code: F00.—) With Delirium: if delirium is superimposed on the dementia

(DSM-IV Code: 290.20 & ICD-10 Code: F00.11) With Delusions: if delusions are the predominant feature

(DSM-IV Code: 290.21 & ICD-10 Code: F00.13) With Depressed Mood: if depressed mood (including presentations that meet full symptom criteria for a Major Depressive Episode) is the predominant feature. A separate diagnosis of Mood Disorder Due to a General Medical Condition is not given.

(DSM-IV Code: 290.0 & ICD-10 Code: F00.10) Uncomplicated: if none of the above predominate in the current clinical presentation

Specify if:

With Behavioural Disturbance

Coding note: also code 331.0 Alzheimer's disease on Axis III.

4) Vascular Dementia (Formerly Multi-Infarct Dementia)

(DSM-IV Code: 290.4x & ICD-10 Code: F01.xx)

Vascular dementia (VaD) is the diagnostic term used when cerebral injury from vascular disease leads to multiple cognitive impairments.

Diagnostic Criteria for Vascular Dementia¹¹

- A. The development of multiple cognitive deficits manifested by both
 - (1) memory impairment (impaired ability to learn new information or to recall previously learned information)
 - (2) one (or more) of the following cognitive disturbances:
 - (a) aphasia (language disturbance)
 - (b) apraxia (impaired ability to carry out motor activities despite intact motor function)
 - (c) agnosia (failure to recognize or identify objects despite intact sensory function)
 - (d) disturbance in executive functioning (i.e., planning, organizing, sequencing, abstracting)
- B. The cognitive deficits in Criteria A1 and A2 each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.
- C. Focal neurological signs and symptoms (e.g., exaggeration of deep tendon reflexes, extensor plantar response, pseudobulbar palsy, gait abnormalities, weakness of an extremity) or laboratory evidence indicative of cerebrovascular disease (e.g., multiple infarctions involving cortex and underlying white matter) that are judged to be etiologically related to the disturbance.
- D. The deficits do not occur exclusively during the course of a delirium.

Code based on predominant features:

(DSM-IV Code: 290.41 & ICD-10 Code: F01.—) With Delirium: if delirium is superimposed on the dementia

(DSM-IV Code: 290.42 & ICD-10 Code: F01.81) With Delusions: if delusions are the predominant feature

(DSM-IV Code: 290.43 & ICD-10 Code: F01.83) With Depressed Mood: if depressed mood (including presentations that meet full symptom criteria for a Major Depressive Episode) is the predominant feature.

ture. A separate diagnosis of Mood Disorder Due to a General Medical Condition is not given.

(DSM-IV Code: 290.40 & ICD-10 Code: F01.80) Uncomplicated: if none of the above predominate in the current clinical presentation

Specify if:

With Behavioural Disturbance

Coding note: Also code cerebrovascular condition on Axis III.

5) Dementia Due to Other General Medical Conditions¹²

(DSM-IV Code: 294.1 & ICD-10 Code: F02.8)

Diagnostic Criteria for Dementia Due to Other General Medical Conditions

- A. The development of multiple cognitive deficits manifested by both
 - (1) memory impairment (impaired ability to learn new information or to recall previously learned information)
 - (2) one (or more) of the following cognitive disturbances:
 - (a) aphasia (language disturbance)
 - (b) apraxia (impaired ability to carry out motor activities despite intact motor function)
 - (c) agnosia (failure to recognize or identify objects despite intact sensory function)
 - (d) disturbance in executive functioning (i.e., planning, organizing, sequencing, abstracting)
- B. The cognitive deficits in Criteria A1 and A2 each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.
- C. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of one of the general medical conditions listed below.
- D. The deficits do not occur exclusively during the course of a delirium.

(DSM-IV Code: 294.9 & ICD-10 Code: F02.4) Dementia Due to HIV Disease

Coding note: Also code (DSM-IV Code: 043.1) HIV infection affecting central nervous system on Axis III.

(DSM-IV Code: 294.1 & ICD-10 Code: F02.8) Dementia Due to Head Trauma

Coding note: Also code (DSM-IV Code: 854.00) head injury on Axis III.

(DSM-IV Code: 294.1 & ICD-10 Code: F02.3) Dementia Due to Parkinson's Disease

Coding note: Also code (DSM-IV Code: 332.0) Parkinson's Disease on Axis III.

(DSM-IV Code: 294.1 & ICD-10 Code: F02.2) Dementia Due to Huntington's Disease

Coding note: Also code (DSM-IV Code: 333.4) Huntington's Disease on Axis III.

(DSM-IV Code: 290.10 & ICD-10 Code: F02.01) Dementia Due to Pick's Disease

Coding note: Also code (DSM-IV Code: 331.1) Pick's Disease on Axis III.

(DSM-IV Code: 294.10 & ICD-10 Code: F02.1) Dementia Due to Creutzfeldt-Jakob Disease

Coding note: Also code (DSM-IV Code: 046.1) Creutzfeldt-Jakob Disease on Axis III.

(DSM-IV Code: 294.1 & ICD-10 Code: F02.8) Dementia Due to ... (Indicate the General Medical Condition not listed above)

For example, normal-pressure hydrocephalus, hypothyroidism, brain tumour, vitamin B₁₂ deficiency, intracranial radiation

Coding note: Also code the general medical condition on Axis III.

(1) Dementia Due to HIV Disease

(DSM-IV Code: 294.9 & ICD-10 Code: F02.4)

Infection with the human immunodeficiencyvirus-type 1 (HIV-1) produces a dementing illness initially called the AIDS dementia complex. A more recent designation is HIV-1-associated cognitive/motor complex.

The essential feature of dementia due to HIV disease is the presence of a dementia that is judged to be the direct pathophysiological consequence of human immunodeficiency virus (HIV) disease. It involves diffuse, multifocal destruction of the white matter and subcortical structures. Dementia that is associated with

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direct HIV infection of the central nervous system is typically characterized by forgetfulness, slowness, poor concentration, and difficulties with problem solving. Its behavioural manifestations include apathy and social withdrawal and may be accompanied by delirium, delusions, or hallucinations. Tremor, impaired rapid repetitive movements, imbalance, ataxia, hypertonia, generalized hyperreflexia, positive frontal release signs, and impaired pursuit and saccadic eye movements may be present.¹³

(2) Dementia Due to Head Trauma

(DSM-IV Code: 294.1 & ICD-10 Code: F02.8)

It is a dementia that is judged to be the direct pathophysiological consequence of head trauma. The degree and type of cognitive impairments or behavioural disturbances depend on the location and extent of the brain injury. Posttraumatic amnesia is frequently present, along with persisting memory impairment. There may be behavioural symptoms with or without the presence of motor or sensory deficits, which are aphasia, attentional problems, irritability, anxiety, depression or affective lability, apathy, increased aggression, or other changes in personality.¹⁴

(3) Dementia Due to Parkinson's Disease

(DSM-IV Code: 294.1 & ICD-10 Code: F02.3)

Parkinson's disease (PD) is characterized by progressive loss of dopaminergic neurons in the substantia nigra and other pigmented brain stem nuclei.

Parkinson's disease is a slowly progressive neurological condition, characterized by tremor, rigidity, bradykinesia, and postural instability. 20%-60% of the individuals with Parkinson's disease do have dementia and dementia is more likely to be present in older individuals or those with more severe or advanced disease. Patients have cognitive and motoric slowing, executive dysfunction, and impairment in memory retrieval.¹⁵

(4) Dementia Due to Huntington's Disease

(DSM-IV Code: 294.1 & ICD-10 Code: F02.2)

Huntington's disease (HD) is an idiopathic neurodegenerative disorder inherited as an autosomal dominant trait with complete penetrance.

It is a dementia that is judged to be the direct pathophysiological consequence of Huntington's disease. Huntington's disease is an inherited progressive degenerative disease of cognition, emotion, and movement. The disease affects men and women equally and is transmitted by a single autosomal dominant gene on the short arm of chromosome 4. The disease is usually diagnosed in the late 30s to early 40s but may begin as early as age 4 years or as late as age 85 years. It is heralded by insidious changes in behaviour and personality, including depression, irritability, and anxiety.¹⁶

(5) Dementia Due to Pick's Disease

(DSM-IV Code: 294.10 & ICD-10 Code: F02.0)

It is a dementia that is judged to be the direct pathophysiological consequence of Pick's disease. Pick's disease is a degenerative disease of the brain that particularly affects the frontal and temporal lobes. It is characterized by changes in personality early in the course, deterioration of social skills, emotional blunting, behavioural disinhibition, and prominent language abnormalities. Difficulties with memory, apraxia, and other features of dementia usually follow later in the course. As it progresses, it may be accompanied by either apathy or extreme agitation. Pick's disease often cannot be distinguished with certainty from atypical cases of Alzheimer's disease or from other dementias that affect the frontal lobes.¹⁷

(6) Dementia Due to Creutzfeldt-Jakob Disease

(DSM-IV Code: 294.10 & ICD-10 Code: F02.1)

It is a dementia that is judged to be the direct pathophysiological consequence of Creutzfeldt-Jakob (CJD) disease. It is one of the subacute spongiform encephalopathies, a group of central nervous system diseases caused by transmissible agents known as 'slow viruses' or prions. Typically, patients with Creutzfeldt-Jakob disease manifest the clinical triad of dementia, involuntary movements (particularly myoclonus), and periodic EEG activity.¹⁸

6) Substance-Induced Persisting Dementia¹⁹

Diagnostic Criteria for Substance-Induced Persisting Dementia

- A. The development of multiple cognitive deficits manifested by both
 - (1) memory impairment (impaired ability to learn new information or to recall previously learned information)
 - (2) one (or more) of the following cognitive disturbances:
 - (a) aphasia (language disturbance)
 - (b) apraxia (impaired ability to carry out motor activities despite intact motor function)
 - (c) agnosia (failure to recognize or identify objects despite intact sensory function)
 - (d) disturbance in executive functioning (i.e., planning, organizing, sequencing, abstracting)
- B. The cognitive deficits in Criteria A1 and A2 each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.
- C. The deficits do not occur exclusively during the course of a delirium and persist beyond the usual duration of Substance Intoxication or Withdrawal.
- D. There is evidence from the history, physical examination, or laboratory findings that the deficits are etiologically related to the persisting effects of substance use (e.g., a drug of abuse, a medication).

Code (Specific Substance)-Induced Persisting Dementia:

(DSM-IV Code: 291.2 & ICD-10 Code: F10.6) Alcohol;

(DSM-IV Code: 292.82 & ICD-10 Code: F18.73) Inhalant;

(DSM-IV Code: 292.82 & ICD-10 Code: F13.73) Sedative, Hypnotic, or Anxiolytic;

(DSM-IV Code: 292.82 & ICD-10 Code: F19.73) Other (or Unknown) Substance)

7) Dementia Due to Multiple Aetiologies²⁰

- A. The development of multiple cognitive deficits manifested by both
 - (1) memory impairment (impaired ability to learn new information or to recall previously learned information)
 - (2) one (or more) of the following cognitive disturbances:

- (a) aphasia (language disturbance)
 - (b) apraxia (impaired ability to carry out motor activities despite intact motor function)
 - (c) agnosia (failure to recognize or identify objects despite intact sensory function)
 - (d) disturbance in executive functioning (i.e., planning, organizing, sequencing, abstracting)
- B. The cognitive deficits in Criteria A1 and A2 each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.
- C. There is evidence from the history, physical examination, or laboratory findings that the disturbance has more than one aetiology (e.g., head trauma plus chronic alcohol use, Dementia of the Alzheimer's Type with the subsequent development of Vascular Dementia).
- D. The deficits do not occur exclusively during the course of a delirium.

Coding note: use multiple codes based on specific dementias and specific aetiologies, e.g., 290.0 Dementia of the Alzheimer's Type, With Late Onset, Uncomplicated; 290.40 Vascular Dementia, Uncomplicated.

8) Dementia Not Otherwise Specified

(DSM-IV Code: 294.8 & ICD-10 Code: F03)

This category is meant to be used to diagnose a dementia that does not meet criteria for any of the specific types described in this section. An example is a clinical presentation of dementia for which there is insufficient evidence to establish a specific aetiology.

9) Treatment

First, what is needed is the verification of the diagnosis. Accurate diagnosis is imperative: disease progression may be halted or even reversed if appropriate therapy is provided. Preventive measures are important, particularly in vascular dementia. Such measures might include changes in diet, exercise, and control of diabetes and hypertension. Pharmacological agents might include antihypertensives, anticoagulants, or antiplatelet agents. Blood

pressure control should aim for the higher end of the normal range, as that has been demonstrated to improve cognitive function in patients with vascular dementia. For the degenerative dementias, no direct therapies have been demonstrated conclusively to reverse or retard the fundamental pathophysiological processes.²¹

4. Amnesic Disorders

1) Diagnostic Criteria

Amnesic disorders are characterized by an inability to learn new information despite normal attention and an ability to recall extremely remote information, with no other cognitive deficits. The principal causes of amnesia include head trauma, Wernicke-Korsakoff syndrome, stroke, neoplasm, herpes encephalitis, anoxia, hypoglycemia, and surgical procedures that disrupt medial temporal structures. Causes of transient amnesia include epileptic convulsions, ischemic episodes, and the syndrome known as transient global amnesia.

2) Differential Diagnosis²²

In Common with	Characteristics Shared	Exclusively characteristic of Amnesic Disorder or of the disorder with which it is compared or difference between the two disorders
Delirium	Memory impairment	Here the symptom occurs in association with impaired consciousness, with reduced ability to focus, sustain, or shift attention
Dementia	Memory impairment	Here the symptoms must be accompanied by multiple cognitive deficits (i.e., aphasia, apraxia, agnosia, or a disturbance in executive functioning)
Dissociative Disorder	Memory impairment	Here the symptom does not involve deficits in learning and recalling new information

3) Amnestic Disorder Due to a General Medical Condition²³

(DSM-IV Code: 294.0 & ICD-10 Code: F04)

Diagnostic Criteria for Amnestic Disorder Due to ... (Indicate the General Medical Condition)

- A. The development of memory impairment as manifested by impairment in the ability to learn new information or the inability to recall previously learned information.
- B. The memory disturbance causes significant impairment in social or occupational functioning and represents a significant decline from a previous level of functioning.
- C. The memory disturbance does not occur exclusively during the course of a delirium or a dementia.
- D. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition (including physical trauma).

Specify if:

Transient: if memory impairment lasts for 1 month or less

Chronic: if memory impairment lasts for more than 1 month

Coding note: Include the name of the general medical condition on Axis I, e.g., 294.0 Amnestic Disorder Due to Head Trauma; also code the general medical condition on Axis III.

4) Substance-Induced Persisting Amnestic Disorder²⁴

Diagnostic Criteria for Substance-Induced Persisting Amnestic Disorder

- A. The development of memory impairment as manifested by impairment in the ability to learn new information or the inability to recall previously learned information.
- B. The memory disturbance causes significant impairment in social or occupational functioning and represents a significant decline from a previous level of functioning.
- C. The memory disturbance does not occur exclusively during the course of a delirium or a dementia and persists beyond the usual duration of Substance Intoxication or Withdrawal.

- D. There is evidence from the history, physical examination, or laboratory findings that the disturbance is etiologically related to the persisting effects of substance use (e.g., a drug of abuse, a medication).

Code (Specific Substance)-Induced Persisting Amnestic Disorder:

(DSM-IV Code: 291.1 & ICD-10 Code: F10.6) Alcohol;

(DSM-IV Code: 292.83 & ICD-10 Code: F13.6) Sedative, Hypnotic, or Anxiolytic;

(DSM-IV Code: 292.83 & ICD-10 Code: F19.6) Other (or Unknown) Substance)

5) Amnestic Disorder Not Otherwise Specified

(DSM-IV Code: 294.8 & ICD-10 Code: R41.3)

This category is used to diagnose an amnestic disorder that does not meet criteria for any of the specific types described in this section. An example is a clinical presentation of amnesia for which there is insufficient evidence to establish a specific aetiology (i.e., dissociative, substance induced, or due to a general medical condition).

5. Cognitive Disorder Not Otherwise Specified

(DSM-IV Code: 294.9 & ICD-10 Code: F06.9)

In this category are disorders that are characterized by cognitive dysfunction presumed to be due to the direct physiological effect of a general medical condition that do not meet criteria for any of the specific deliriums, dementias, or amnestic disorders listed in this section and that are not better classified as Delirium Not Otherwise Specified, Dementia Not Otherwise Specified, or Amnestic Disorder Not Otherwise Specified. For cognitive dysfunction due to a specific or unknown substance, the specific Substance-Related Disorder Not Otherwise Specified category should be used. Examples are

1. Mild neurocognitive disorder: impairment in cognitive functioning as evidenced by neuropsychological testing or quantified clinical assessment, accompanied by objective evidence of a systemic general medical condition or central nervous system dysfunction.

2. Postconcussional disorder: following a head trauma, impairment in memory or attention with associated symptoms.

6. Treatment

Whenever a primary systemic or cerebral disorder is causally tied to the amnesic syndrome, initial treatment (with thiamine, antiviral medication, and aspirin) must be directed towards the underlying pathological process. Presently there are no known, definitively effective treatments for amnesic disorder that are specifically aimed at reversing apparent memory deficits. Patients require supervised living situations to ensure appropriate feeding and care.

7. Conclusion

There is a steady increase in the number of individuals with symptoms of delirium, dementia, amnesia and other cognitive disorders. These cognitive disorders occur commonly and are particularly prevalent in geriatric patients. Delirium is the most common psychiatric syndrome seen in a general medical hospital. Dementia is a rapidly growing major health problem. Amnesic disorders, although seen somewhat less frequently, commonly occur after severe head trauma, strokes, alcohol abuse, and other disorders. Competency in the diagnosis, management, and treatment of these disorders is essential for a psychiatrist.²⁵

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DISORDERS USUALLY FIRST DIAGNOSED IN INFANCY, CHILDHOOD, OR ADOLESCENCE

1. Introduction

Childhood is a period of vulnerability and progressive development toward adult personality and character. There are discrete psychopathological entities that are usually first diagnosed in youth. These disorders often emerge in combinations, change in presentation during maturation, interact with each other over time, and can be obscured or amplified by intervening developmental events. What we consider here are the childhood-onset disorders, which are crystalline abstract entities. Children need to change and grow which reflects their push to interact and modify in multiple dimensions.

We may notice multiple psychiatric disorders in one and the same child psychiatric patient. Each primary psychiatric disorder in childhood can lead to secondary developmental complications, such as conduct disorder or school failure and, more persistently, to low self-esteem and disorders of social assertiveness. Primary syndromes quickly expand with secondary complications during development, blurring the boundaries of the 'original' psychopathology. It is also likely that some disorders move in clusters through families and individuals, and interact with each other to produce more virulent forms of the disorders. Thus we witness the effects of multiple concurrent disorders evident in children and adolescents although personality diagnoses are usually withheld before age 18.

A lifetime of 'associated features' may be generated by the developmental expansion of childhood psychopathology. It is believed that all psychiatric disorders can begin during childhood. Therefore any diagnosis can be used as a primary diagnostic label in a child. So even personality disorders (except for antisocial personality disorder) may be diagnosed in children if the characteristic of the personality disorder appears pervasive and unusually persistent. Therefore all childhood-onset disorders can have major sequelae in adults or develop into adult disorders.

In young children even mild or transient medical problems can cause flagrant behavioural symptoms. There is a doubling of the prevalence of psychiatric disorders in children with non-central nervous system physical handicaps and diseases. Again the developmental stage can influence the presentation, significance, and course of a psychiatric disorder. We are dealing not only with conditions that begin in childhood but also are typically diagnosed during childhood. Some behavioural patterns are normal at certain developmental stages but become pathological at later developmental stages. However, most of the behaviours exhibited in these disorders are not normal at any age perhaps.¹

The provision of a separate chapter for disorders that are usually first diagnosed in infancy, childhood, or adolescence is for convenience only and does not suggest that there is any clear distinction between 'childhood' and 'adult' disorders. Although most individuals with these disorders are diagnosed during childhood or adolescence, the disorders sometimes are not diagnosed until adulthood. Besides, many disorders included in other chapters of this book often have an onset during childhood or adolescence.

2. Mental Retardation

The diagnosis of mental retardation encompasses more than low intelligence (e.g., as measured by IQ); it also requires deficits in adaptive functioning. Therefore we have a diagnostic concept of mental retardation as constituting low-IQ-plus-adaptive-deficits. The description of mental retardation includes three features: 1. subaverage intelligence, 2. impaired adaptive functioning, and 3. childhood onset.

1) Diagnostic Criteria²

Diagnostic Criteria for Mental Retardation

- A. Significantly subaverage intellectual functioning: an IQ of approximately 70 or below on an individually administered IQ test (for infants, a clinical judgement of significantly subaverage intellectual functioning).
- B. Concurrent deficits or impairments in present adaptive functioning (i.e., the person's effectiveness in meeting the standards expected for his or her age by his or her cultural group) in at least two of the following areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety.
- C. The onset is before the age 18 years.

Code based on degree of severity reflecting level of intellectual impairment:

(DSM-IV Code: 317 & ICD-10 Code: F70.9) Mild Mental Retardation: IQ level 50-55 to approximately 70

(DSM-IV Code: 318.0 & ICD-10 Code: F71.9) Moderate Retardation: IQ level 35-40 to 50-55

(DSM-IV Code: 318.1 & ICD-10 Code: F72.9) Severe Mental Retardation: IQ level 20-25 to 35-40

(DSM-IV Code: 318.2 & ICD-10 Code: F73.9) Profound Mental Retardation: IQ level below 20-25

(DSM-IV Code: 319 & ICD-10 Code: F79.9) Mental Retardation, Severity Unspecified: when there is strong presumption of Mental Retardation but the person's intelligence is untestable by standard tests

2) Differential Diagnosis³

In Common with	Characteristics Shared	Exclusively characteristic of Mental Retardation or of the disorder with which it is compared or difference between the two disorders
Learning Disorders or Communication Disorders	The development in a specific area (e.g., reading,	Here in these cases, there is no generalized impairment in intellectual development and adaptive functioning

	expressive language) is impaired	
Pervasive Developmental Disorders	There is qualitative impairment in the development of reciprocal social interaction and in the development of verbal and nonverbal social communication skills	Mental retardation often accompanies pervasive developmental disorders (75%-80% of individuals with a pervasive developmental disorder also have mental retardation)
Dementia	Some cases of mental retardation have their onset after a period of normal functioning and may qualify for the additional diagnosis of dementia	A diagnosis of dementia requires that the memory impairment and other cognitive deficits represent a significant decline from a previously higher level of functioning

3. Learning Disorders (Formerly Academic Skills Disorder)

1) Reading Disorders

(DSM-IV Code: 315.00 & ICD-10 Code: F81.0)

Reading disorder is a specific neuropsychiatric form of reading disability. It can be a severe impairment, even in the presence of normal intelligence, educational opportunity, motivation, and emotional control. It is commonly called dyslexia, a learning disorder characterized by a slow acquisition of reading skills resulting from demonstrable cognitive deficits, primarily in cortical function.

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Slow reading speed, impaired comprehension, word omissions or distortions, and letter reversals result in functioning below the expected performance levels based on age and intelligence.

(1) Diagnostic Criteria⁴

Diagnostic Criteria for Reading Disorder

- A. Reading achievement, as measured by individually administered standardized tests of reading accuracy or comprehension, is substantially below that expected given the person's chronological age, measured intelligence, and age-appropriate education.
- B. The disturbance in Criterion A significantly interferes with academic achievement or activities of daily living that require reading skills.
- C. If a sensory deficit is present, the reading difficulties are in excess of those usually associated with it.

Coding note: If a general medical (e.g., neurological) condition or sensory deficit is present, code the condition on Axis III.

(2) Aetiology

Though the main etiological factors appear to be neurological, symptoms severity and duration are affected by learning and experience. It represents localizable brain disorders and thus defects in cortical regions. Anomalous cerebral morphology in the bilateral frontal and left temporoparietal regions has been identified. Magnetic resonance imaging data demonstrate subtle variations in the morphology of the corpus callosum.⁵

(3) Treatment

There is little evidence supporting the use of any particular teaching method, including the usual perceptual training based on an individual's strong learning modality (e.g., auditory vs. visual). Parental involvement seems to be crucial in providing support for the educational programme and for the child's persistent efforts in a criticism-free learning environment. The standard psychotropic medications are not useful in treating reading disorder.⁶

2) Mathematics Disorder

(DSM-IV Code: 315.1 & ICD-10 Code: F81.2)

Mathematics disorder can present with circumscribed deficits associated with fact retrieval or with more globalized deficits associated with problem conceptualisation. Arithmetic facts may be deficient despite preserved mathematical conceptual knowledge. Mathematics disorder involves difficulty in learning to count, doing simple mathematical calculations, conceptualising sets of objects, and thinking spatially (right-left, up-down, east-west). There may be difficulties in copying shapes, mathematical memory, number and procedure sequencing, and the naming of mathematical concepts and operations. Factors that produce slow academic development of mathematical abilities include neurological, genetic, psychological, and socioeconomic conditions as well as learning experiences. This disorder indicates individuals whose mathematical abilities are low for their IQ.

Diagnostic Criteria⁷

Diagnostic Criteria for Mathematics Disorder

- A. Mathematical ability, as measured by individually administered standardized tests, is substantially below that expected given the person's chronological age, measured intelligence, and age-appropriate education.
- B. The disturbance in Criterion A significantly interferes with academic achievement or activities of daily living that require mathematical ability.
- C. If a sensory deficit is present, the difficulties in mathematical ability are in excess of those usually associated with it.

Coding note: If a general medical (e.g., neurological) condition or sensory deficit is present, code the condition on Axis III.

3) Disorder of Written Expression

(DSM-IV Code: 315.2 & ICD-10 Code: F81.8)

Spelling, grammar, sentence and paragraph formation, organizational structure, and punctuation are the areas of difficulty in this disorder. Symptoms are slow writing speed, low written

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yield, illegibility, letter reversals, word finding and syntax errors, erasures, rewritings, spacing errors, and punctuation and spelling problems. Ideational content and intellectual abstraction may be limited. These deficits may be due to the underlying problems with graphomotor (hand and pencil control), fine motor, and visuomotor function; attention; memory; concept formation and organization (prioritising and flow); and expressive language function.

Diagnostic Criteria⁸

Diagnostic Criteria for Disorder of Written Expression

- A. Writing skills, as measured by individually administered standardized tests (or functional assessments of writing skills), are substantially below those expected given the person's chronological age, measured intelligence, and age-appropriate education.
- B. The disturbance in Criterion A significantly interferes with academic achievement or activities of daily living that require the composition of written texts (e.g., writing grammatically correct sentences and organized paragraphs).
- C. If a sensory deficit is present, the difficulties in writing skills are in excess of those usually associated with it.

Coding note: If a general medical (e.g., neurological) condition or sensory deficit is present, code the condition on Axis III.

4) Learning Disorder Not Otherwise Specified

(DSM-IV Code: 315.9 & ICD-10 Code: F81.9)

This category is meant for disorders in learning that do not meet criteria for any specific learning disorder. It might include problems in all three areas (reading, mathematics, and written expression) that together significantly interfere with academic achievement even though performance on tests measuring each individual skill is not substantially below that expected given the person's chronological age, measured intelligence, and age-appropriate education.

5) Differential Diagnosis⁹

In Common with	Characteristics Shared	Exclusively characteristic of Learning Disorder or of the disorder with which it is compared or

		difference between the two disorders
Normal variations in academic attainment	Poor performance on standardized achievement tests	Here the causes are lack of opportunity, poor teaching or cultural factors
Impaired vision or hearing	Poor performance on standardized achievement tests	A learning disorder may be diagnosed in the presence of such sensory deficits only if the learning difficulties are in excess of those usually associated with these deficits
Mental Retardation	Poor performance on standardized achievement tests	Learning difficulties are commensurate with general impairment in intellectual functioning
Pervasive Developmental Disorder	Poor performance on standardized achievement tests	Learning disorder may be additionally diagnosed when the academic impairment is significantly below the expected levels

4. Motor Skills Disorder

There are three areas of motor deficits: clumsiness, adventitious movements, and dyspraxia. Clumsiness is a slowness or awkwardness in the movement of single joints, involves disruption of the integration of agonist and antagonist muscle groups. It can reduce the capacity to perform more complex motor tasks, such as riding a bike or drawing. It is usually observed in finger tapping or in picking up very small objects. Adventitious movements are involuntary movements that occur during voluntary movements (e.g., opening the mouth while reaching). Dyspraxia, the impaired learning or performance of sequential voluntary movements (relative to age or verbal intelligence) that cannot be attributed to sensory or mechanical limitations, does not improve when specific tasks are executed without time limits or hurry. Its expression may involve a range of muscle movements, from localized movements (face, tongue, or hands) to global movements, and may depend partially on cerebral dominance.¹⁰

1) Developmental Coordination Disorder

(DSM-IV Code: 315.4 & ICD-10 Code: F82)

Developmental coordination disorder involves deficits in the learning and performance of motor skills. Integration of motor functions and memory of motor tasks are also impaired. There may be significant impairments of gross or fine motor functions, which are apparent in running, throwing a ball, buttoning, holding a pencil, and moving with grace. It is also manifested in generalized physical awkwardness.

(1) Diagnostic Criteria¹¹

Diagnostic Criteria for Developmental Coordination Disorder

- A. Performance in daily activities that require motor coordination is substantially below that expected given the person's chronological age and measured intelligence. This may be manifested by marked delay in achieving motor milestones (e.g., walking, crawling, sitting), dropping things, 'clumsiness,' poor performance in sports, or poor handwriting.
- B. The disturbance in Criterion A significantly interferes with academic achievement or activities of daily living.
- C. The disturbance is not due to a general medical condition (e.g., cerebral palsy, hemiplegia, or muscular dystrophy) and does not meet criteria for a Pervasive Developmental Disorder.
- D. If Mental Retardation is present, the motor difficulties are in excess of those usually associated with it.

Coding note: if a general medical (e.g., neurological) condition or sensory deficit is present, code the condition on Axis III.

(2) Differential Diagnosis¹²

In Common with	Characteristics Shared	Exclusively characteristic of Developmental Coordination Disorder or of the disorder with which it is compared or difference between the two disorders
Specific Neurological Disorders (e.g., cerebral	Problems in coordination	Here there is definite neural damage

palsy, progressive lesions of the cerebellum)		
Mental Retardation	Problems in coordination	Developmental Coordination Disorder can be diagnosed only if the difficulties are in excess of those usually associated with the mental retardation
Attention-Deficit/Hyperactivity Disorder	Problems in coordination	Here falling, bumping into things, or knocking things over occur due to distractibility and impulsiveness rather than to a motor impairment

5. Communication Disorder

Speech problems (regarding sound production) and language problems (involving the communicative use of speech as well as other communicative modes) are due to general cerebral dysfunctions. The usual development of language and speech skills occurs over many years, and there is a wide range of normal functioning. By age 5 years, children are expected to speak fluently, comprehend, and express themselves. In speech and language disorders, deficits in articulation (diction or speech sound production), expression (oral language production and use), and reception (comprehension) may be evident by age 2-3 years. Early speech and language problems frequently improve during development, and these early delays are not strongly predictive of subsequent learning disorders. All the same, children with early genuine speech and language problems are at high risk for later learning disorders, as well as persistent communication disorders.

Hearing loss plays a significant role in the aetiology of the communication disorders. Hearing is crucial in the development of speech and language, and impairments of hearing operate etiologically alongside genetic, neurological, environmental, and educational factors. During the formative period of language development, fluctuating hearing capacity can diminish verbal intelligence and academic performance in a persistent way.¹³

1) Expressive Language Disorder

(DSM-IV Code: 315.31 & ICD-10 Code: F80.1)

Here the symbolic production and communicative use of language are impaired. The individual is unable to put the idea into words, and also has problems in nonverbal expression. There are similar difficulties with repeating, imitating, pointing to named objects, or acting on commands.

(1) Diagnostic Criteria¹⁴

Diagnostic Criteria for Expressive Language Disorder

- A. The scores obtained from standardized individually administered measures of expressive language development are substantially below those obtained from standardized measures of both non-verbal intellectual capacity and receptive language development. The disturbance may be manifest clinically by symptoms that include having a markedly limited vocabulary, making errors in tense, or having difficulty recalling words or producing sentences with developmentally appropriate length or complexity.
- B. The difficulties with expressive language interfere with academic or occupational achievement or with social communication.
- C. Criteria are not met for Mixed Receptive-Expressive Language Disorder or a Pervasive Developmental Disorder.
- D. If Mental Retardation, a speech-motor or sensory deficit, or environmental deprivation is present, the language difficulties are in excess of those usually associated with these problems.

Coding note: If a speech-motor or sensory deficit or a neurological condition is present, code the condition on Axis III.

(2) Differential Diagnosis¹⁵

In Common with	Characteristics Shared	Exclusively characteristic of Expressive Language Disorder or of the disorder with which it is compared or difference between the two disorders
Mixed Receptive-Expressive Language Disorder	Expressive language impairment	Here there is significant impairment in receptive language

Autistic Disorder	Expressive language impairment	Here besides language problem there is communication impairment(e.g., stereotyped use of language)
Mental Retardation, a hearing impairment or other sensory deficit, a speech motor deficit, or severe environmental deprivation	Expressive and receptive language impairment	If the language difficulties are in excess of those usually associated with these problems, a concurrent diagnosis of expressive language or mixed receptive-expressive language disorder may be made
Disorder of Written Expression	Expressive language impairment	Here there is a disturbance in writing skills
Selective Mutism	Expressive language impairment	Here they have normal language in some settings
Acquired Aphasia	Expressive language impairment	Here it is due to a general medical condition

2) Mixed Receptive-Expressive Language Disorder

(DSM-IV Code: 315.31 & ICD-10 Code: F80.2)

It is the impaired development of language comprehension that entails impairments in both decoding (i.e., comprehension) and encoding (e.g., expression). Multiple cortical deficits are usually observed, including sensory, integrative, recall, and sequencing functions. Since it involves both receptive and expressive language deficits, it is more severe and socially disruptive than expressive language disorder. The main aetiology of mixed receptive-expressive language disorder appears to be neurobiological, usually genetic factors or cortical damage.

Diagnostic Criteria¹⁶

Diagnostic Criteria for Mixed Receptive-Expressive Language Disorder

- A. The scores obtained from a battery of standardized individually administered measures of both receptive and expressive language

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development are substantially below those obtained from standardized measures of nonverbal intellectual capacity. Symptoms include those for Expressive Language Disorder as well as difficulty understanding words, sentences, or specific types of words, such as spatial terms.

- B. The difficulties with receptive and expressive language significantly interfere with academic or occupational achievement or with social communication.
- C. Criteria are not met for a Pervasive Developmental Disorder.
- D. If Mental Retardation, a speech-motor or sensory deficit, or environmental deprivation is present, the language difficulties are in excess of those usually associated with these problems.

Coding note: If a speech-motor or sensory deficit or a neurological condition is present, code the condition on Axis III.

3) Phonological Disorder

(DSM-IV Code: 315.39 & ICD-10 Code: F80.0)

Phonological Disorder is an impairment in articulation and in learning sound production for speech; and it includes substitutions, omissions, additions, and distortions. Speech may be slightly or largely unintelligible, or it may sound like 'baby talk.' Speech sound production depends on the development of speech motor control (tongue, lips, palate, larynx, jaw, breathing muscles), auditory perception (vowel and consonant phonemes, rhythm, intensity, intonation), and the ability to make sounds, contrasts, combinations, plural formations, and emphases.

(1) Diagnostic Criteria¹⁷

Diagnostic Criteria for Phonological Disorder

- A. Failure to use developmentally expected speech sounds that are appropriate for age and dialect (e.g., errors in sound production, use, representation, or organization such as, but not limited to, substitutions of one sound for another [use of /t/ for target /k/ sound] or omissions of sounds such as final consonants).
- B. The difficulties in speech sound production interfere with academic or occupational achievement or with social communication.

C. If Mental Retardation, a speech-motor or sensory deficit, or environmental deprivation is present, the speech difficulties are in excess of those usually associated with these problems.

Coding note: If a speech-motor or sensory deficit or a neurological condition is present, code the condition on Axis III.

(2) Differential Diagnosis¹⁸

In Common with	Characteristics Shared	Exclusively characteristic of Phonological Disorder or of the disorder with which it is compared or difference between the two disorders
Mental Retardation, a hearing impairment or other sensory deficit, a speech-motor deficit, or severe environmental deprivation	Speech difficulties	If the speech difficulties are in excess of those usually associated with these problems, a concurrent diagnosis of phonological disorder may be made

4) Stuttering

(DSM-IV Code: 307.0 & ICD-10 Code: F98.5)

Stuttering, the disruption of normal speech flow, is characterized by involuntary and irregular hesitations, prolongations, repetitions, or blocks on sounds, syllables, or words. Usually anxiety produces a noticeable aggravation of speech rhythm and rate in people who stutter. There may be a temporary worsening during periods of performance anxiety or communicative stress (e.g., during public speaking or a job interview). Etiological theories of stuttering are based on genetic, neurological, and behavioural concepts. Certain forms of acquired stuttering are clearly neurological in origin, such as stuttering that begins after stroke or secondary to degenerative brain disease. Stuttering often starts at age 2-4 years or, less commonly, at age 5-7 years. Neurological and acquired stuttering tend to be more constant and fixed, in contrast

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to a greater variability of the genetic, constitutional, and psychodynamic forms. In the case of nonneurogenic stuttering the symptoms are often absent during singing, reading aloud, talking in unison, or talking to pets or inanimate objects. There may be complications of fearful anticipation, eye blinking, tics, and avoidance of problematic words and situations.

(1) Diagnostic Criteria¹⁹

Diagnostic Criteria for Stuttering

- A. Disturbance in the normal fluency and time patterning of speech (inappropriate for the individual's age), characterized by frequent occurrences of one or more of the following:
 - (1) sound and syllable repetitions
 - (2) sound prolongations
 - (3) interjections
 - (4) broken words (e.g., pauses within a word)
 - (5) audible or silent blocking (filled or unfilled pauses in speech)
 - (6) circumlocutions (word substitutions to avoid problematic words)
 - (7) words produced with an excess of physical tension
 - (8) monosyllabic whole-word repetitions (e.g., 'I-I-I see him')
- B. The disturbance in fluency interferes with academic or occupational achievement or with social communication.
- C. If a speech-motor or sensory deficit is present, the speech difficulties are in excess of those usually associated with these problems.

Coding note: If a speech-motor or sensory deficit or a neurological condition is present, code the condition on Axis III.

(2) Differential Diagnosis²⁰

In Common with	Characteristics Shared	Exclusively characteristic of Stuttering or of the disorder with which it is compared or difference between the two disorders
Hearing impairment or other sensory deficit	Speech difficulties	In instances where the speech difficulties are in excess of those usually associated with these problems

or a speech-motor deficit		a concurrent diagnosis of stuttering may be made
Normal dysfluencies that occur frequently in young children	Speech difficulties	Here these are normal in young children in their development of speech

5) Communication Disorder Not Otherwise Specified

(DSM-IV Code: 307.9 & ICD-10 Code: F80.9)

This category is meant for disorders in communication that do not meet criteria for any specific communication disorder; for example, a voice disorder (i.e., an abnormality of vocal pitch, loudness, quality, tone, or resonance).

6. Pervasive Developmental Disorders

The pervasive developmental disorders make up a neurobiologically diverse group of conditions characterized by deficits across many areas of functioning that lead to a remarkably pervasive but diffuse disruption of developmental processes.

1) Autistic Disorder

(DSM-IV Code: 299.00 & ICD-10 Code: F84.0)

This is an early-onset pervasive developmental disorder and it entails disabilities in virtually all psychological and behavioural sectors. Although it was initially conceptualised as a deprivation syndrome, later evidence of neuropsychiatric dysfunction led to a more biological construct of the affective, cognitive, social, communicative, motor, neurovegetative, integrative, and adaptive abnormalities. This disorder is often apparent at birth or early infancy.²¹

(1) Aetiology

What play a significant role in autistic disorder are genetic and biological factors. All the researches in the area of aetiology entail 1. neuromaturational abnormalities that affect the development of brain structure and cerebral asymmetry, 2. pervasive and diffuse changes in widely disparate parts of the brain, 3. diffuse but pervasive symptoms in a variety of dimensions, and 4. serotonergic abnormalities in at least a subgroup of patients.²²

(2) Diagnostic Criteria²³

Diagnostic Criteria for Autistic Disorder

- A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):
- (1) qualitative impairment in social interaction, as manifested by at least two of the following:
 - (a) marked impairment in the use of multiple nonverbal behaviours such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
 - (b) failure to develop peer relationships appropriate to developmental level
 - (c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)
 - (d) lack of social or emotional reciprocity
 - (2) qualitative impairments in communication as manifested by at least one of the following:
 - (a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
 - (b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
 - (c) stereotyped and repetitive use of language or idiosyncratic language
 - (d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level
 - (3) restricted repetitive and stereotyped patterns of behaviour, interests, and activities, as manifested by at least one of the following:
 - (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
 - (b) apparently inflexible adherence to specific, nonfunctional routines or rituals

- (c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
- (d) persistent preoccupation with parts of objects
- B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.
- C. The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder.

(3) Differential Diagnosis²⁴

In Common with	Characteristics Shared	Exclusively characteristic of
Rett's Disorder	Similar symptoms	Autistic Disorder or of the disorder with which it is compared or difference between the two disorders
Childhood Disintegrative Disorder	Similar symptoms	Here there is a characteristic pattern of head growth deceleration, loss of previously acquired purposeful hand skills, and the appearance of poorly coordinated gait or trunk movements. Rett's Disorder is found only in females, whereas Autistic Disorder occurs much more frequently in males
Asperger's Disorder	Similar symptoms	Here there is a pattern of developmental regression following at least 2 years of normal development. In autistic disorder, the developmental abnormalities are usually noted within the first year of life
Schizophrenia	Similar symptoms	Here there is a lack of delay in language development
Selective Mutism	Similar symptoms	Schizophrenia usually develops after years of normal, or near normal, development. Here the child exhibits appropriate communication skills in certain contexts

Expressive Language Disorder and Mixed Receptive-Expressive Language Disorder	Similar symptoms	Here the language impairment is not associated with the impairment in social interaction
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(4) Treatment

Behavioural therapies are found to be helpful in controlling unwanted symptoms, promoting social interactions, increasing self-reliance, and facilitating exploration (i.e., novelty-seeking behaviour). Assertiveness training, educational, vocational training, teaching of adaptive skills and support in managing major life events are effective. Environmental management, especially predictable or programmed structure is of particular value. There is no drug treatment of autistic disorder itself, but psychotropic medications can be used to target particular symptoms, symptom clusters, and comorbid disorders in patients. Thus, though no single medication is generally indicated, a variety of different agents can provide symptomatic benefit.²⁵

2) Rett's Disorder

(DSM-IV Code: 299.80 & ICD-10 Code: F84.2)

Rett's disorder is a progressive neuropsychiatric disorder in girls (although there may be some undocumented cases of boys), who typically present with autistic features. It unfolds in four stages: relative normalcy, developmental arrest, plateau, and significant motor decline. This disorder can be observed in very young girls; progressive clinical decline is the hallmark. Aetiology of this disorder remains obscure.

(1) Diagnostic Criteria²⁶

Diagnostic Criteria for Rett's Disorder	
A. All of the following:	
(1) apparently normal prenatal and perinatal development	
(2) apparently normal psychomotor development through the first 5 months after birth	
(3) normal head circumference at birth	

- B. Onset of all of the following after the period of normal development:
- (1) deceleration of head growth between ages 5 and 48 months
 - (2) loss of previously acquired purposeful hand skills between ages 5 and 30 months with the subsequent development of stereotyped hand movements (e.g., hand-wringing or hand washing)
 - (3) loss of social engagement early in the course (although often social interaction develops later)
 - (4) appearance of poorly coordinated gait or trunk movements
 - (5) severely impaired expressive and receptive language development with severe psychomotor retardation

(2) Differential Diagnosis²⁷

In Common with	Characteristics Shared	Exclusively characteristic of Rett's Disorder or of the disorder with which it is compared or difference between the two disorders
Childhood Disintegrative Disorder	Similar symptoms	Here the period of normal development is typically more prolonged
Asperger's Disorder	Similar symptoms	In Rett's disorder there is a severe impairment in expressive and receptive language development

(3) Treatment

There is no specific treatment for Rett's disorder. Children may benefit from special education, and physical therapy may be needed. Pharmacotherapy may be indicated to decrease hand stereotypies and the mouthing and wetting of hands with saliva, which may result in lesions. Haloperidol is the drug of choice in such cases.²⁸

3) Childhood Disintegrative Disorder

(DSM-IV Code: 299.10 & ICD-10 Code: F84.3)

This disorder may begin with behavioural symptoms, such as anxiety, anger, or outbursts, but the general loss of functions

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becomes pervasive and severe. No specific neurobiological deficit or cause for this disorder is identified. Significant psychosocial or medical stressors have been reported in association with the onset or worsening of the disorder, but their etiological significance is not established.

(1) Diagnostic Criteria²⁹

Diagnostic Criteria for Childhood Disintegrative Disorder

- A. Apparently normal development for at least the first 2 years after birth as manifested by the presence of age-appropriate verbal and nonverbal communication, social relationships, play, and adaptive behaviour.
- B. Clinically significant loss of previously acquired skills (before age 10 years) in at least two of the following areas:
 - (1) expressive or receptive language
 - (2) social skills or adaptive behaviour
 - (3) bowel or bladder control
 - (4) play
 - (5) Motor skills
- C. Abnormalities of functioning in at least two of the following areas:
 - (1) qualitative impairment in social interaction (e.g., impairment in nonverbal behaviours, failures to develop peer relationships, lack of social or emotional reciprocity)
 - (2) qualitative impairments in communication (e.g., delay or lack of spoken language, inability to initiate or sustain a conversation, stereotyped and repetitive use of language, lack of varied make-believe play)
 - (3) restricted, repetitive, and stereotyped patterns of behaviour, interests, and activities, including motor stereotypies and mannerisms
- D. The disturbance is not better accounted for by another specific Pervasive Developmental Disorder or by Schizophrenia.

(2) Differential Diagnosis³⁰

In Common with	Characteristics Shared	Exclusively characteristic of Childhood Disintegrative Disorder or of the disorder with which it is compared or difference between the two disorders

Dementia	Decline in mental functioning	Here the symptom appears as a consequence of the direct physiological effects of a general medical condition
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4) Asperger's Disorder

(DSM-IV Code: 299.80 & ICD-10 Code: F84.5)

Asperger's disorder is a pervasive developmental disorder that is similar to autistic disorder except that language skills and cognition are partially preserved. Because of its similarity with autistic disorder some consider it a mild version of autistic disorder (i.e., high-functioning autism). There seems to be a relative sparing of intelligence, language, and cognition, as well as lower prevalence of mental retardation. The aetiology of this disorder remains unknown. In some cases there is a familial pattern, consistent with genetic, psychosocial, or environmental transmission. Treatment includes social and motor skills training, remedial educational interventions and vocational training. Because of their relative capability to use language and intelligence, they have a better outcome than those with autistic disorder.

(1) Diagnostic Criteria³¹

Diagnostic Criteria for Asperger's Disorder

- A. Qualitative impairment in social interaction, as manifested by at least two of the following:
- (1) marked impairment in the use of multiple nonverbal behaviours such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
 - (2) failure to develop peer relationships appropriate to developmental level
 - (3) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interests to other people)
 - (4) lack of social or emotional reciprocity
- B. Restricted repetitive and stereotyped patterns of behaviour, interests, and activities, as manifested by at least one of the following:

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- (1) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
 - (2) apparently inflexible adherence to specific, nonfunctional routines or rituals
 - (3) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
 - (4) persistent preoccupation with parts of objects
- C. The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning.
- D. There is no clinically significant general delay in language (e.g., single words used by age 2 years, communicative phrases used by age 3 years).
- E. There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behaviour (other than in social interaction), and curiosity about the environment in childhood.
- F. Criteria are not met for another specific Pervasive Developmental Disorder or Schizophrenia.

(2) Differential Diagnosis³²

In Common with	Characteristics Shared	Exclusively characteristic of Asperger's Disorder or of the disorder with which it is compared or difference between the two disorders
Obsessive-Compulsive Disorder	Repetitive and stereotyped patterns of behaviour	In Asperger's disorder there is a qualitative impairment in social interaction and a more restricted pattern of interests and activities
Schizoid Personality Disorder	Impaired social interaction	Asperger's disorder is characterized by stereotyped behaviours and interests and by more severely impaired social interaction

5) Pervasive Developmental Disorder Not Otherwise Specified (Including Atypical Autism)

(DSM-IV Code: 299.80 & ICD-10 Code: F84.9)

This category is meant for a severe and pervasive impairment in the development of reciprocal social interaction or verbal and nonverbal communication skills, or when stereotyped behaviour, interests, and activities are present, but the criteria are not met for a specific Pervasive Developmental Disorder, Schizophrenia, Schizotypal Personality Disorder, or Avoidant Personality Disorder. For example, take ‘atypical autism’ – presentations that do not meet the criteria for Autistic Disorder because of late age at onset, atypical symptomatology, or subthreshold symptomatology, or all of these.

7. Attention-Deficit and Disruptive Behaviour Disorders

1) Attention-Deficit/Hyperactivity Disorder

Children or adults with attention-deficit/hyperactivity disorder (ADHD) show the behavioural characteristics of impulsivity (or motor hyperactivity), the cognitive characteristics of inattention (e.g., short attention span and distractibility), or both. ADHD can affect people of all ages. ADHD was first identified on a large scale in the early 20th century even though it was originally described in antiquity. Major symptoms include motoric hyperactivity, impulsivity, and inattention. Because measures of activity and attention in ADHD generally are only weakly correlated, the two symptoms appear to reflect independent dimensions of psychopathology.

Pathological functioning can also be seen in motivation, emotionality, anger control, and aggressivity. Motivational problems include variability, unpredictability, difficulty in sustaining interest and completing projects, and simple frustration and discouragement. Emotional impulsivity is most obvious in anger and aggressive behaviour. Exploratory behaviour can seem ‘aggressive,’ involving an energetic foraging into new places and things. Not all children with ADHD have behavioural problems, hyperactivity, or excessive aggressivity.³³

Genetics

Though there are both genetic and nongenetic factors, the genetic ones seem to predominate. The family transmission of ADHD is prominent in males. ADHD appears in particular families that comorbidly transmit other psychiatric disorders, so that ADHD appears to form clusters with certain psychiatric conditions that are transmitted together in particular families.³⁴

General Medical Factors

Streptococcal infection, (generalized) resistance to thyroid hormone, hyperthyroidism, ordinary hunger, and occasionally constipation can lead to the appearance of ADHD or ADHD-like symptoms.³⁵

Neuromedical Factors

Brain damage (often frontal cortex), neurological disorders, low birth weight, perinatal anoxia of extreme severity, and exposure to neurotoxins (pre-and postnatal) can cause ADHD.³⁶

Right Hemisphere Syndrome

ADHD-like symptoms are present in 93% of people with right hemisphere syndrome, which is a series of right cortical deficits that can appear in healthy individuals who have difficulties in learning, memory, concentration, and organization.

The following are the psychiatric disorders often associated with attention-deficit/hyperactivity disorder: conduct disorder, oppositional defiant disorder, bipolar disorder, learning disorders, motor skills disorder, substance use disorders, communication disorders, major depression, posttraumatic stress disorder, obsessive-compulsive disorder, Tourette’s disorder, schizophrenia, mental retardation and pervasive developmental disorders, including autistic disorder.³⁷

(1) Diagnostic Criteria³⁸

Diagnostic Criteria for Attention-Deficit/Hyperactivity Disorder

A. Either (1) or (2):

- (1) six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Inattention

- (a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
 - (b) often has difficulty sustaining attention in tasks or play activities
 - (c) often does not seem to listen when spoken to directly
 - (d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behaviour or failure to understand instructions)
 - (e) often has difficulty organizing tasks and activities
 - (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
 - (g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
 - (h) is often easily distracted by extraneous stimuli
 - (i) is often forgetful in daily activities
- (2) six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

- (a) often fidgets with hands or feet or squirms in seat
- (b) often leaves seat in classroom or in other situations in which remaining seated is expected
- (c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- (d) often has difficulty playing or engaging in leisure activities quietly
- (e) is often 'on the go' or often acts as if 'driven by a motor'
- (f) often talks excessively

Impulsivity

- (g) often blurts out answers before questions have been completed
- (h) often has difficulty awaiting turn
- (i) often interrupts or intrudes on others (e.g., butts into conversations or games)

- B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.
- C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).
- D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.
- E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

Code based on type:

(DSM-IV Code: 314.01 & ICD-10 Code: F90.0) Attention-Deficit/Hyperactivity Disorder, Combined Type: if both Criteria A1 and A2 are met for the past 6 months

(DSM-IV Code: 314.00 & ICD-10 Code: F98.8) Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type: if Criterion A1 is met but Criterion A2 is not met for the past 6 months

(DSM-IV Code: 314.01 & ICD-10 Code: F90.0) Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type: if Criterion A2 is met but Criterion A1 is not met for the past 6 months

Coding note: For individuals (especially adolescents and adults) who currently have symptoms that no longer meet full criteria, 'In Partial Remission' should be specified.

(2) Differential Diagnosis³⁹

In Common with	Characteristics Shared	Exclusively characteristic of Attention-Deficit/Hyperactivity Disorder or of the disorder with which it is compared or difference between the two disorders
Mental Retardation	Inattention or hyperactivity	An additional diagnosis of attention deficit/hyperactivity disorder can be made only if the symptoms of inattention or hyperactivity are excessive for the child's mental age

Oppositional Behaviour	Avoidance of school work	Here the cause of the symptom is unwillingness to conform to others' demands
Another Mental Disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, Personality Disorder, Personality Change Due to a General Medical Condition, or a Substance-Related Disorder)	Inattention	In all these disorders, the symptoms of inattention typically have an onset after age 7 years.

(3) Attention-Deficit/Hyperactivity Disorder Not Otherwise Specified

(DSM-IV Code: 314.9 & ICD-10 Code: F90.9)

This category is meant for disorders with prominent symptoms of inattention or hyperactivity-impulsivity that do not meet criteria for Attention-Deficit/Hyperactivity Disorder.

(4) Treatment

Environmental management can reduce overstimulation of senses from external sources, keep impulsivity and aggressivity in better control, and provide a sense of control and basis for self-esteem. It is good to arrange the patient's home and job or school setting to reduce stimuli and distractions. At home, quiet spaces could be established, keeping toys away; permitting only one friend to visit at a time; avoiding supermarkets and parties. At work, adolescents and adults need to use a quiet, small office space with no officemates, with minimum of visitors. In a way, the work environment should be uncluttered and undistracting. Psychostimulant treatment seems to have efficacy and tricyclic antidepressants have been shown to be effective.⁴⁰

2) Conduct Disorder

(DSM-IV Code: 312.8 & ICD-10 Code: F91.8)

Conduct disorder seems to be the most common diagnosis of child and adolescent patients. It involves repeated violations of others' personal rights or societal rules, including violent and nonviolent behaviours. The syndrome is not a single medical entity but consists of various forms of major misbehaviours.

(1) Diagnostic Criteria⁴¹

Diagnostic Criteria for Conduct Disorder

- A. A repetitive and persistent pattern of behaviour in which the basic rights of others or major age-appropriate societal 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: Aggression to people and animals
- (1) often bullies, threatens, or intimidates others
 - (2) often initiates physical fights
 - (3) has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun)
 - (4) has been physically cruel to people
 - (5) has been physically cruel to animals
 - (6) has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery)
 - (7) has forced someone into sexual activity
- Destruction of property
- (8) has deliberately engaged in fire setting with the intention of causing serious damage
 - (9) has deliberately destroyed others' property (other than by fire setting)
- Deceitfulness or theft
- (10) has broken into someone else's house, building, or car
 - (11) often lies to obtain goods or favours or to avoid obligations (i.e., 'cons' others)
 - (12) has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery)

Serious violations of rules

(13) often stays out at night despite parental prohibitions, beginning before age 13 years

(14) has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lengthy period)

(15) is often truant from school, beginning before age 13 years

B. The disturbance in behaviour causes clinically significant impairment in social, academic, or occupational functioning.

C. If the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

Specify type based on age at onset:

Childhood-Onset Type: onset of at least one criterion characteristic of Conduct Disorder prior to age 10 years

Adolescent-Onset Type: absence of any criteria characteristic of Conduct Disorder prior to age 10 years

Specify severity:

Mild: few if any conduct problems in excess of those required to make the diagnosis and conduct problems cause only minor harm to others

Moderate: number of conduct problems and effect on others intermediate between 'mild' and 'severe'

Severe: many conduct problems in excess of those required to make the diagnosis or conduct problems cause considerable harm to others

(2) Differential Diagnosis⁴²

In Common with	Characteristics Shared	Exclusively characteristic of Conduct Disorder or of the disorder with which it is compared or difference between the two disorders
Oppositional Defiant Disorder	Disobedience and opposition to authority figures	Here there is no persistent pattern of the more serious forms of behaviour in which either the basic rights of others or age-appropriate societal norms or rules are violated
Attention-Deficit/Hyperactivity	Disruptive behaviour	Here the behaviour does not by itself violate age-appropriate soci-

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Disorder		etal norms and therefore does not usually meet criteria for conduct disorder
Manic Episode	Irritability and conduct problems	Here the episodic course and accompanying symptoms are different from those of conduct disorder
Antisocial Personality Disorder	Conduct problems	The diagnosis of antisocial personality disorder cannot be given to individuals under age 18 years

(3) Treatment

Because of the diversity of presentations and severities of conduct disorder, treatment can move in several directions like legal sanctions, family interventions, social support, psychotherapeutic treatment of individual or family, or neuromedical treatment. From the beginning till the end, the quick establishment of a containment structure and an expectation of effective limit setting to provide both safety and a holding environment for treatment are essential.

Cognitive-behaviour therapy will help in developing skills for managing anger, controlling impulsivity, and communicating. Training in problem-solving skills may be useful.⁴³

3) Oppositional Defiant Disorder

(DSM-IV Code: 313.81 & ICD-10 Code: F91.3)

Child patients with oppositional defiant disorder display argumentative and disobedient behaviour, but, unlike children with conduct disorder, respect the personal 'rights' of other people. Oppositional or defiant behaviour may be seen in children during major affective episodes (depression or hypomania) or more enduringly in chronic mood disorder. But here we are concerned about oppositional defiant disorder whose behaviour occurs apart from psychosis or symptomatic periods of mood disorders. Anger-related symptoms are the presenting behaviour problems. A crucial feature of oppositional struggling is the self-defeating stand taken in arguments. They are willing to lose something they want rather than lose a struggle. Passive-aggressive and 'sneaky' behaviour can also be seen but not like the manipulative behaviour of the children with conduct disorder.

(1) Diagnostic Criteria⁴⁴

Diagnostic Criteria for Oppositional Defiant Disorder

- A. A pattern of negativistic, hostile, and defiant behaviour lasting at least 6 months, during which four (or more) of the following are present:
- (1) often loses temper
 - (2) often argues with adults
 - (3) often actively defies or refuses to comply with adults' requests or rules
 - (4) often deliberately annoys people
 - (5) often blames others for his or her mistakes or misbehaviour
 - (6) is often touchy or easily annoyed by others
 - (7) is often angry and resentful
 - (8) is often spiteful or vindictive
- Note: Consider a criterion met only if the behaviour occurs more frequently than is typically observed in individuals of comparable age and developmental level
- B. The disturbance in behaviour causes clinically significant impairment in social, academic, or occupational functioning.
- C. The behaviours do not occur exclusively during the course of a Psychotic or Mood Disorder.
- D. Criteria are not met for Conduct Disorder, and, if the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

(2) Differential Diagnosis⁴⁵

In Common with	Characteristics Shared	Exclusively characteristic of
Conduct Disorder	Disruptive behaviour	Oppositional Defiant Disorder or of the disorder with which it is compared or difference between the two disorders
Attention-Deficit/Hyperactivity Disorder	Oppositional behaviour	The behaviour is due to inattention and impulsivity

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Impaired Language Comprehension	Failure to follow direction	The directions are not understood by the individuals with impaired language comprehension.
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(3) Aetiology

Oppositional defiant disorder appears to be a characteristic of a family rather than of a child. There are a few psychosocial mechanisms that are hypothesized like 1. parental problems in disciplining, structuring, and limit setting, 2. identification by the child with an impulse-disordered parent, who sets a role model, and 3. attachment deficits due to parents' emotional or physical unavailability (e.g., depression, separation, evening work hours). All the same, neurobiological influences and temperamental factors may also contribute.⁴⁶

(4) Treatment

Behavioural techniques can modify oppositional behaviour. Psychoanalytic psychotherapy also may be effective.

4) Disruptive Behaviour Disorder Not Otherwise Specified

(DSM-IV Code: 312.9 & ICD-10 Code: F91.9)

This category is meant for disorders characterized by conduct or oppositional defiant behaviours that do not meet the criteria for Conduct Disorder or Oppositional Defiant Disorder. For example, we can include clinical presentations that do not meet full criteria either for Oppositional Defiant Disorder or Conduct Disorder, but in which there is clinically significant impairment.

8. Feeding and Eating Disorders of Infancy or Early Childhood**1) Pica**

(DSM-IV Code: 307.52 & ICD-10 Code: F98.3)

Often we see a pattern of eating nonfood materials in young children, individuals with severe or profound mental retardation, and pregnant women. Geophagia (the eating of clay or soil) is a similar phenomenon that is an ordinary and sanctioned activity in

many cultures in the world. What is culturally determined will not be considered a mental disorder. The things that are eaten are paper, paint, coins, string, rags, hair, faeces, vomitus, leaves, bugs, worms, and cloth. Pregnant women have a craving for fruit and sharp-tasting foods. Besides these, at times they may seek and eat starchy materials, refrigerator frost, or substances containing minerals. Cultural geophagia commonly involves the eating of earth, clay, sand, and pebbles. Geophagia is common in children and in pregnant women.

(1) Diagnostic Criteria⁴⁷

Diagnostic Criteria for Pica

- A. Persistent eating of nonnutritive substance for a period of at least 1 month.
- B. The eating of nonnutritive substance is inappropriate to the developmental level.
- C. The eating behaviour is not part of a culturally sanctioned practice.
- D. If the eating behaviour occurs exclusively during the course of another mental disorder (e.g., Mental Retardation, Pervasive Developmental Disorder, Schizophrenia), it is sufficiently severe to warrant independent clinical attention.

(2) Differential Diagnosis⁴⁸

In Common with	Characteristics Shared	Exclusively characteristic of Pica or of the disorder with which it is compared or difference between the two disorders
Pervasive Developmental Disorder, Schizophrenia and Kleine-Levin Syndrome	Eating of non-nutritive substances	In such instances, an additional diagnosis of Pica should be given only if the eating behaviour is sufficiently severe to warrant independent clinical attention

(3) Treatment

Behavioural therapy seems to be fitting for children and mentally retarded persons with pica. They are rewarding appropriate

eating, teaching the differentiation of edible foods, over-correction (immediate enforcement of oral hygiene), and negative reinforcement (time-outs, physical restraint) especially meant for mentally retarded individuals. Psychosocial interventions include promotion of maternal supervision and stimulation, improvement of play opportunities (new toys), and placement in day care. It is good to supplement the therapy with concomitant medical treatments.⁴⁹

2) Rumination Disorder

(DSM-IV Code: 307.53 & ICD-10 Code: F98.2)

Especially in the absence of caregivers and other sources of stimulation, some infants show a pleasurable relaxation as they regurgitate, re-chew, drool, and reswallow their food. There is obvious enjoyment and enthusiasm about this activity. This disorder seems to reflect abnormal development of early self-stimulation and physiological regulation, and it is particularly apparent when infants are alone. Rumination known as 'merycism' may be a cause or result of disrupted parent-child attachments, and it may be associated with major developmental delays and mental retardation. Rumination may be relatively common in adults with mental retardation, and patients with anorexia or bulimia. It may be also observed as a transient response to situational stressors in normal children.

(1) Diagnostic Criteria⁵⁰

Diagnostic Criteria for Rumination Disorder

- A. Repeated regurgitation and re-chewing of food for a period of at least 1 month following a period of normal functioning.
- B. The behaviour is not due to an associated gastrointestinal or other general medical condition (e.g., esophageal reflux).
- C. The behaviour does not occur exclusively during the course of Anorexia Nervosa or Bulimia Nervosa. If the symptoms occur exclusively during the course of Mental Retardation or a Pervasive Developmental Disorder, they are sufficiently severe to warrant independent clinical attention.

(2) Differential Diagnosis⁵¹

In Common with	Characteristics Shared	Exclusively characteristic of Rumination Disorder or of the disorder with which it is compared or difference between the two disorders
Congenital anomalies (e.g., pyloric stenosis or gastroesophageal reflux)	Regurgitation	These are not properly called rumination
Normal vomiting of early infancy	Regurgitation	Here there is the absence of preparatory movements followed by regurgitation and sucking or chewing movements that appear to be pleasurable
Anorexia Nervosa or Bulimia Nervosa	Regurgitation	Rumination disorder is not diagnosed if the symptoms occur exclusively during the course of anorexia nervosa or bulimia nervosa

(3) Treatment

Since there is no established treatment for this disorder, various forms of behavioural therapy, parental guidance and medication (antispasmodics and tranquillisers) have been tried. Some of the behavioural techniques are cuddling and playing with the child before, during, and after mealtime to reduce social deprivation and behavioural withdrawal. Aversive conditioning (e.g., putting hot pepper sauce or lemon on the infant's tongue) may be helpful. Negative attention like shouting at or slapping the child may reinforce the behaviour, especially if other forms of reinforcement and attention are lacking or ineffective. One could try a combination of a negative reinforcement (a scolding and putting the child down for 2 minutes) with a reward for nonrumination (parental attention and social interaction, like being cleaned and played with). Temporary hospitalisation may separate the child from the primary caregiver and provide an alternative feeding environment.⁵²

3) Feeding Disorder of Infancy or Early Childhood

(DSM-IV Code: 307.59 & ICD-10 Code: F98.2)

Failure to thrive (FTT) in children indicates retardation of body growth or milestone attainment resulting from inadequate nutritional intake. The organic form results from chronic physical illness (congenital AIDS), neurological disease, sensory deficit, or virtually any serious paediatric disease. The nonorganic form comprises 1. homeostatic disorder of infancy (sleep and feeding dysregulation), 2. pathological food refusal, 3. protein-calorie malnutrition, and 4. social and emotional factors interfering with adequate nutritional care (i.e., reactive attachment disorder). Here we do not include all forms of nonorganic failure to thrive, cases of child neglect or cases of inadequate eating due to obviously defective parenting or feeding. Usually infants may gag when fed or refuse to open their mouths. The retardation in weight gain is typically accompanied by motor, social, and linguistic delays as well as a problematic relationship with the feeder or caregiver.

(1) Diagnostic Criteria⁵³

Diagnostic Criteria for Feeding Disorder of Infancy or Early Childhood

- A. Feeding disturbance as manifested by persistent failure to eat adequately with significant failure to gain weight or significant loss of weight over at least 1 month.
- B. The disturbance is not due to an associated gastrointestinal or other general medical condition (e.g., esophageal reflux).
- C. The disturbance is not better accounted for by another mental disorder (e.g., Rumination Disorder) or by lack of available food.
- D. The onset is before age 6 years.

(2) Differential Diagnosis⁵⁴

In Common with	Characteristics Shared	Exclusively characteristic of Feeding Disorder or of the disorder with which it is compared or difference between the two disorders

Gastrointestinal, endocrinological, or neurological condition	Problems in feeding	Here the symptoms are due to a medical condition
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(3) Treatment

It is useful to employ the services of a multidisciplinary team, preferably in a hospital setting, for evaluating (assessment of body growth as well as observations of the mother-child interactions in general and in particular feeding) and initiating treatment.

9. Tic Disorders

1) Diagnostic Criteria

Tic disorders are stereotyped abnormalities of semi-involuntary movement presumably related to dysfunction in the basal ganglia, which are situated at a midway position among higher and lower centres within the brain. It is subject to moment-to-moment influences from environmental and internal stimuli. Though tics are involuntary, patients may consciously suppress tic movements temporarily. Tics are brief and repetitive but not rhythmic motor (muscular) or vocal (phonic) responses that are purposeless but may resemble purposeful acts. They involve recurrent movements of the same muscle groups, but their location can change gradually over time. Their form may be simple (motor: jerking movements, shrugging, eye blinking; vocal: grunting, sniffing, throat clearing) or complex (motor: grimacing, bending, banging; vocal: echolalia, odd inflections and accents).⁵⁵

2) Differential Diagnosis⁵⁶

In Common with	Characteristics Shared	Exclusively characteristic of Tic Disorder or of the disorder with which it is compared or difference between the two disorders
Abnormal movements that may accompany general medical conditions	Body movements	Here the general medical condition and substance are responsible

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or may be due to the direct effects of a substance		
Stereotypic Movement Disorder	Body movements	Stereotypic movements appear to be more driven and intentional, whereas tics have a more involuntary quality and are not rhythmic
Compulsion	Body movements	Tics are typically less complex and are not aimed at neutralizing the anxiety resulting from an obsession
Catatonic behaviour in Schizophrenia	Body movements	Here it is due to psychotic influence

3) Types of Tic Disorder

(1) Tourette's Disorder

(DSM-IV Code: 307.23 & ICD-10 Code: F95.2)

Tourette's disorder is a lifelong disease entailing vocal tics and multiple motor tics. If within a year both motor and verbal tics are observed, then it is transient tic disorder and when it goes beyond 1 year, then it is considered Tourette's disorder. Both motor and vocal tics of this disorder may be simple or complex. The behavioural component can be suppressed voluntarily, but then a premonitory sensory urge (usually with a subjective sense of tension) builds up. This sensation of craving before a tic, is relieved temporarily when patients allow themselves to express their tics in action.

Diagnostic Criteria⁵⁷

Diagnostic Criteria for Tourette's Disorder

- A. Both multiple motor and one or more vocal tics have been present at some time during the illness, although not necessarily concurrently. (a 'tic' is a sudden, rapid, recurrent, nonrhythmic, stereotyped motor movement or vocalization.)
- B. The tics occur many times a day (usually in bouts) nearly every day or intermittently throughout a period of more than 1 year,

and during this period there was never a tic-free period of more than 3 consecutive months.

- C. The disturbance causes marked distress or significant impairment in social, occupational, or other important areas of functioning.
- D. The onset is before age 18 years.
- E. The disturbance is not due to the direct physiological effects of a substance (e.g., stimulants) or a general medical condition (e.g., Huntington's disease or postviral encephalitis).

(2) Chronic Motor or Vocal Tic Disorder

(DSM-IV Code: 307.22 & ICD-10 Code: F95.1)

If either motor or vocal tics persist for more than 1 year, then the diagnosis of chronic motor or vocal tic disorder is made. It is motoric and similar in form to those in other motor tic disorders. Chronic vocal tics are rare, usually mild, and generally consist of grunts. Behavioural and pharmacological treatments are effective, and psychosocial interventions (including individual and family psychotherapy) will be helpful.

Diagnostic Criteria⁵⁸

Diagnostic Criteria for Chronic Motor or Vocal Tic Disorder

- A. Single or multiple motor or vocal tics (i.e., sudden, recurrent, nonrhythmic, stereotyped motor movements or vocalizations), but not both, have been present at some time during the illness.
- B. The tics occur many times a day nearly every day or intermittently throughout a period of more than 1 year, and during this period there was never a tic-free period of more than 3 consecutive months.
- C. The disturbance causes marked distress or significant impairment in social, occupational, or other important areas of functioning.
- D. The onset is before age 18 years.
- E. The disturbance is not due to the direct physiological effects of a substance (e.g., stimulants) or a general medical condition (e.g., Huntington's disease or postviral encephalitis).
- F. Criteria have never been met for Tourette's Disorder.

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(3) Transient Tic Disorder

(DSM-IV Code: 307.21 & ICD-10 Code: F95.0)

If daily tics persist for 2 weeks to 1 year then it is considered as transient tic disorder. It is usually motoric, but it is otherwise similar in appearance to chronic and Tourette's tics. Both genetic and psychosocial factors influence the appearance of transient tic disorder. When tics present in apparent response to physical or emotional trauma, the individual generally has an underlying genetic vulnerability. This disorder does not require treatment. It is advisable to reduce attention to the symptoms and criticism of the child. Behavioural techniques (e.g., relaxation), medications (e.g., minor tranquillisers, low dosages of major tranquillisers), or brief psychotherapy may be helpful of anxiety management and tic control in some cases.

Diagnostic Criteria⁵⁹

Diagnostic Criteria for Transient Tic Disorder

- A. Single or multiple motor and/or vocal tics (i.e., sudden, recurrent, nonrhythmic, stereotyped motor movements or vocalizations)
- B. The tics occur many times a day, nearly every day for at least 4 weeks, but for no longer than 12 consecutive months.
- C. The disturbance causes marked distress or significant impairment in social, occupational, or other important areas of functioning.
- D. The onset is before age 18 years.
- E. The disturbance is not due to the direct physiological effects of a substance (e.g., stimulants) or a general medical condition (e.g., Huntington's disease or postviral encephalitis).
- F. Criteria have never been met for Tourette's Disorder or Chronic Motor or Vocal Tic Disorder.

Specify if: Single Episode or Recurrent

(4) Tic Disorder Not Otherwise Specified

(DSM-IV Code: 307.20 & ICD-10 Code: F95.9)

This category is meant for disorders characterized by tics that do not meet criteria for a specific Tic Disorder. Examples are tics lasting less than 4 weeks or tics with an onset after age 18 years.

4) Treatment

Most tic disorders are transient. All the same, a substantial minority of them are chronic, if not lifelong, conditions. Educational and supportive interventions are helpful to most patients with tics. Pharmacotherapy, especially with antipsychotic medications, has been the primary intervention for severe tic disorders. Patients with transient tics or with chronic motor tics alone generally do not require medication. Various forms of psychotherapy can provide a useful adjunctive treatment in selected cases.⁶⁰

10. Elimination Disorders

1) Encopresis

Encopresis represents acts of soiling of clothes, voiding in bed, and excretion onto the floor occurring after age 4 years when full bowel control is developmentally expected. To avoid organic causes, medical evaluation for structural and other nonfunctional abnormalities needs to be made. This disorder results from a chronic constipation and is generally accompanied by pain during defecation, smell, and embarrassment. In half of the patients bowel control is not yet learned and so it is due to slow development or an early developmental fixation (primary encopresis). In the other half, one learns bowel control, is continent for at least 1 year, and then regresses, typically by age 8 years (secondary encopresis). The primary encopresis is due to a high rate of developmental delays and the secondary encopresis is due to conduct disorder and psychosocial stressors. Encopresis without constipation and overflow can involve a lack of sphincter awareness or weak sphincter control as one of its causes. Postbath soiling can take place due to physical stimulation. If soiling is deliberate and the child is typically impulsive or hostile, antisocial or major psychiatric disorders may be present. If smearing takes place, it is accidental (when done to hide the accident) or purposeful (when defiant or vindictive).

(1) Diagnostic Criteria⁶¹

Diagnostic Criteria for Encopresis

- A. Repeated passage of faeces into inappropriate places (e.g., clothing or floor) whether involuntary or intentional
- B. At least one such event a month for at least 3 months.

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- C. Chronological age is at least 4 years (or equivalent developmental level).
- D. The behaviour is not due exclusively to the direct physiological effects of a substance (e.g., laxatives) or a general medical condition except through a mechanism involving constipation.

Code as follows:

(DSM-IV Code: 787.6 & ICD-10 Code: R15) With Constipation and Overflow Incontinence

(DSM-IV Code: 307.7 & ICD-10 Code: F98.1) Without Constipation and Overflow Incontinence

(2) Treatment

Some of the techniques of treatment are bowel cleansing (laxatives, enemas), daily maintenance on mineral oil, counselling (education, reducing interpersonal struggles and negative affects, and rewards) and follow-up. Usually, residual encopresis in adolescence and adulthood is associated with psychopathology. In cases of stiff resistance, the focus of treatment must shift from the encopresis to a more general treatment of associated psychopathological disorders.⁶²

2) Enuresis (Not Due to a General Medical Condition)

(DSM-IV Code: 307.6 & ICD-10 Code: F98.0)

There could always be urinary incontinence in young children and even occasionally in older children once the toilet training is over and it is a normal developmental phenomenon. But enuresis (not due to a general medical condition) is understood when medically unexplained urinary incontinence is frequent, distressing, or interfering with activities. One acquires urinary bladder control by age 3 or 4. Functional enuresis refers to enuresis 'not due to a general medical condition,' and enuresis refers to enuresis regardless of cause. Generally bedwetting is more common than daytime urinary incontinence. If a child has daytime (diurnal) enuresis, then it usually has nocturnal enuresis too.

(1) Diagnostic Criteria⁶³

Diagnostic Criteria for Enuresis

- A. Repeated voiding of urine into bed or clothes (whether involuntary or intentional).

- B. The behaviour is clinically significant as manifested by either a frequency of twice a week for at least 3 consecutive months or the presence of clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning.
- C. Chronological age is at least 5 years (or equivalent developmental level).
- D. The behaviour is not due exclusively to the direct physiological effect of a substance (e.g., a diuretic) or a general medical condition (e.g., diabetes, spina bifida, a seizure disorder).

Specify type: Nocturnal Only or Diurnal Only or Nocturnal and Diurnal

(2) Treatment

Behavioural techniques are useful in treating nocturnal enuresis: restriction of pre-bedtime fluid intake, planned midsleep awakenings for voiding in toilet, and rewards for successful nights. There are also some pharmacological interventions for enuresis.⁶⁴

11. Other Disorders of Infancy, Childhood, or Adolescence

1) Separation Anxiety Disorder

(DSM-IV Code: 309.21 & ICD-10 Code: F93.0)

Generally anxiety in children and adolescents is not taken seriously since we assume that children tend to be anxious. Here cognitive, affective, somatic, and behavioural symptoms appear in response to genuine or fantasised separation from attachment figures. It is evident in difficulty in falling asleep (pre-bedtime agitation) and school absenteeism. Even though the major attachment object is usually a parent or caregiver, it can be a favourite toy or familiar place. Though it is centred on separation from a parent, it can be also manifested as an anticipatory fear of being injured, kidnapped, or killed. The child may have an inability to sleep in its own bed, visit friends, go on errands, or stay at camp. It is interesting to note that children of this disorder may sense a clear 'line of demarcation' that separates safe from unsafe and thus for example a child may enter the school compound but not the building. No doubt these children display internalising behaviours

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and psychological mechanisms. Pathological compliance may be seen. There can be also somatizations (stomachaches, headaches) in the morning on school days, a fear of teachers, or passive-aggressive traits.

(1) Diagnostic Criteria⁶⁵

Diagnostic Criteria for Separation Anxiety Disorder

- A. Developmentally inappropriate and excessive anxiety concerning separation from home or from those to whom the individual is attached, as evidenced by three (or more) of the following:
 - (1) recurrent excessive distress when separation from home or major attachment figures occurs or is anticipated
 - (2) persistent and excessive worry about losing, or about possible harm befalling, major attachment figures
 - (3) persistent and excessive worry that an untoward event will lead to separation from a major attachment figure (e.g., getting lost or being kidnapped)
 - (4) persistent reluctance or refusal to go to school or elsewhere because of fear of separation
 - (5) persistently and excessively fearful or reluctant to be alone or without major attachment figures at home or without significant adults in other settings
 - (6) persistent reluctance or refusal to go to sleep without being near a major attachment figure or to sleep away from home
 - (7) repeated nightmares involving the theme of separation
 - (8) repeated complaints of physical symptoms (such as headaches, stomachaches, nausea, or vomiting) when separation from major attachment figures occurs or is anticipated
- B. The duration of the disturbance is at least 4 weeks.
- C. The onset is before age 18 years.
- D. The disturbance causes clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning.
- E. The disturbance does not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and, in adolescents and adults, is not better accounted for by Panic Disorder With Agoraphobia.

Specify if:

Early Onset: if onset occurs before age 6 years

(2) Differential Diagnosis⁶⁶

In Common with	Characteristics Shared	Exclusively characteristic of Separation Anxiety Disorder or of the disorder with which it is compared or difference between the two disorders
Pervasive Developmental Disorders, Schizophrenia, or Other Psychotic Disorders	Anxiety	Here the symptom is an associated feature of these disorders and no separate diagnosis of Separation Anxiety Disorder is made
Generalized Anxiety Disorder	Anxiety	In Separation Anxiety Disorder the anxiety concerns separation from home and attachment figures
Panic Disorder With Agoraphobia or Agoraphobia Without History of Panic Disorder	Anxiety	Here anxiety is an associated feature of these disorders and does not warrant a separate diagnosis

(3) Treatment

Treatment for separation anxiety disorder involves psychosocial interventions (individual psychotherapy combined with family therapy or parental guidance), often with antianxiety or antidepressant medication.⁶⁷

2) Selective Mutism (Formerly Elective Mutism)

(DSM-IV Code: 313.23 & ICD-10 Code: F94.0)

Selective mutism entails children not using speech in specific settings and showing abnormalities of interpersonal behaviour and social assertiveness. In this disorder children do not speak in one or several of the major environments in which they live. Even though they can talk without difficulty in certain places (usually at home), partial or total muteness appears selectively in unfamiliar places or particular social situations. Though many of the children with selective mutism have normal language capabilities, nearly one-third of them have a language disorder, and about one-half

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have a speech disorder or delayed speech development. These children have an increased prevalence of neurological disorders and mental retardation.

(1) Diagnostic Criteria⁶⁸**Diagnostic Criteria for Selective Mutism**

- A. Consistent failure to speak in specific social situations (in which there is an expectation for speaking, e.g., at school) despite speaking in other situations.
- B. The disturbance interferes with educational or occupational achievement or with social communication.
- C. The duration of the disturbance is at least 1 month (not limited to the first month of school).
- D. The failure to speak is not due to a lack of knowledge of, or comfort with, the spoken language required in the social situation.
- E. The disturbance is not better accounted for by a Communication Disorder (e.g., Stuttering) and does not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder.

(2) Differential Diagnosis⁶⁹

In Common with	Characteristics Shared	Exclusively characteristic of Selective Mutism or of the disorder with which it is compared or difference between the two disorders
Communication Disorder, such as Phonological Disorder, Expressive Language Disorder, Mixed Receptive-Expressive Language Disorder, or Stuttering	Speech disturbance	Unlike selective mutism, the speech disturbance in these conditions is not restricted to a specific social situation
Pervasive Developmental Disorder,	Speech disturbance	Here the individuals are unable to speak in social situations whereas in selective mutism the

Schizophrenia or Other Psychotic Disorder, or Severe Mental Retardation		individuals have the capacity to speak in some social situations
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(3) Treatment

Behavioural therapies are generally employed like contingency management, positive reinforcement, desensitisation, and assertiveness training. Behavioural therapies could also be combined with a selective serotonin reuptake inhibitor. It is generally useful to maintain a clear expectation by the parents and teachers that the child talk and communicate, at least for a structured period each day at home, at each school period, and at each treatment session. There are some practical techniques that can reduce muteness. Minimizing the 'directness' of verbal interaction can reduce the subjective feelings of threat or aggressivity that the child may experience in communicating. The one who addresses the child could cover his/her mouth while speaking, reducing eye contact, using averted body positions, speaking in gestures (pantomime), and silent mouthing of words. It is good to give simple questions to the child to answer in writing or a one-word answer. If it is a question of speech phobia, then the therapist can positively reinforce the sense of relief and pride once the words have been uttered with great tension and rigidity. It is good to address the psychotherapies on issues related to fear, including self-esteem, separation and autonomy, and assertiveness.⁷⁰

3) Reactive Attachment Disorder of Infancy or Early Childhood

(DSM-IV Code: 313.89 & ICD-10 Code: F94.x)

Young children and even infants may display abnormal interpersonal behaviour, altered emotional excitability, and cognitive changes following physical or emotional abuse by a caregiver. What is understood in this situation is that the abnormal behaviour results from disordered developmental early interpersonal attachment. This disorder is the consequence of physical or sexual abuse; caregiving by emotionally disturbed individuals; inappropriate parental emotional involvement; neglect, enduring posttraumatic reactions,

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instability of home environments; and impaired attachment or bonding. Any failure of normal development may be seen as reactive attachment disorder if preceded by clear failures in child care. The hallmark of this disorder is the appearance of grossly disturbed interpersonal relations following grossly inadequate early care in childhood; there may or may not be evidence of their linkage.

(1) Diagnostic Criteria⁷¹

Diagnostic Criteria for Reactive Attachment Disorder of Infancy or Early Childhood

- A. Markedly disturbed developmentally inappropriate social relatedness in most contexts, beginning before age 5 years, as evidenced by either (1) or (2):
 - (1) persistent failure to initiate or respond in a developmentally appropriate fashion to most social interactions, as manifest by excessively inhibited, hypervigilant, or highly ambivalent and contradictory responses (e.g., the child may respond to caregivers with a mixture of approach, avoidance, and resistance to comforting, or may exhibit frozen watchfulness)
 - (2) diffuse attachments as manifest by indiscriminate sociability with marked inability to exhibit appropriate selective attachments (e.g., excessive familiarity with relative strangers or lack of selectivity in choice of attachment figures)
- B. The disturbance in Criterion A is not accounted for solely by developmental delay (as in Mental Retardation) and does not meet criteria for a Pervasive Developmental Disorder.
- C. Pathogenic care as evidenced by at least one of the following:
 - (1) persistent disregard of the child's basic emotional needs for comfort, stimulation, and affection
 - (2) persistent disregard of the child's basic physical needs
 - (3) repeated changes of primary caregiver that prevent formation of stable attachments (e.g., frequent changes in foster care)
- D. There is a presumption that the care in Criterion C is responsible for the disturbed behaviour in Criterion A (e.g., the disturbances in Criterion A began following the pathogenic care in Criterion C).

Specify type:

Inhibited Type: (ICD-10 Code: F94.1) if Criterion A1 predominates in the clinical presentation or Disinhibited Type: (ICD-10 Code: F94.2) if Criterion A2 predominates in the clinical presentation

(2) Differential Diagnosis⁷²

In Common with	Characteristics Shared	Exclusively characteristic of Reactive Attachment Disorder or of the disorder with which it is compared or difference between the two disorders
Mental Retardation	Problems in formation of selective attachments	The symptom is an associated feature of mental retardation and does not warrant a separate diagnosis
Autistic Disorder and other Pervasive Developmental Disorder	Problems in formation of selective attachments	Here these are characterized by the presence of a qualitative impairment in communication and restricted, repetitive, and stereotyped patterns of behaviour
Attention-Deficit/Hyperactivity Disorder	Problems in formation of selective attachments	In contrast to attention-deficit/hyperactivity disorder the disinhibited behaviour in reactive attachment disorder is characteristically associated with attempting to form a social attachment after a very brief acquaintance

(3) Treatment

What are needed here as treatment is basic medical care, provision of adequate caregiving, parental education, and parental psychiatric treatment. Removal from the home environment and hospitalisation might permit the establishment of normal feeding and physiological patterns as well as the opportunity for evaluating and expanding the parents' caregiving capacities.⁷³

4) Stereotypic Movement Disorder (Formerly Stereotypy/Habit Disorder)

(DSM-IV Code: 307.3 & ICD-10 Code: F98.4)

It is generally known that certain repetitive and purposeless motor behaviours are seen in young children, sensory-deprived (deaf or blind) people, or individuals with mental retardation, pervasive developmental disorders, and some psychotic disorders (e.g.,

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schizophrenia, mood disorders with psychomotor changes). In fact these stereotypies have a self-stimulatory component, but typical stereotypic movement disorder should cause functional interference or physical injury. The stereotypies are head banging, body rocking, hand flapping, whirling, stereotyped laughter, thumb sucking, hair fingering, facial touching, self-hitting, teeth grinding and breath holding. Among these head banging and body rocking are more common.

(1) Diagnostic Criteria⁷⁴**Diagnostic Criteria for Stereotypic Movement Disorder**

- A. Repetitive, seemingly driven, and nonfunctional motor behaviour (e.g., hand shaking or waving, body rocking, head banging, mouthing of objects, self-biting, picking at skin or bodily orifices, hitting own body).
- B. The behaviour markedly interferes with normal activities or results in self-inflicted bodily injury that requires medical treatment (or would result in an injury if preventive measures were not used).
- C. If Mental Retardation is present, the stereotypic or self-injurious behaviour is of sufficient severity to become a focus of treatment.
- D. The behaviour is not better accounted for by a compulsion (as in Obsessive-Compulsive Disorder), a tic (as in Tic Disorder), a stereotypy that is part of a Pervasive Developmental Disorder, or hair pulling (as in Trichotillomania).
- E. The behaviour is not due to the direct physiological effects of a substance or a general medical condition.
- F. The behaviour persists for 4 weeks or longer.

Specify if:

With Self-Injurious Behaviour: if the behaviour results in bodily damage that requires specific treatment (or that would result in bodily damage if protective measures were not used)

(2) Differential Diagnosis⁷⁵

In Common with	Characteristics Shared	Exclusively characteristic of Stereotypic Movement Disorder or of the disorder with which it is compared or difference between the two disorders

Mental Retardation	Stereotypic movements	Here the stereotypic movements are less severe
Pervasive Developmental Disorders	Stereotypic movements	Here the stereotypic movements are associated feature and do not warrant a separate diagnosis
Obsessive-Compulsive Disorder	Stereotypic movements	Here the symptoms are more complex and ritualistic performed in response to an obsession or according to rules that must be applied rigidly
Simple tics (e.g., eye blinking) and complex motor tics	Stereotypic movements	Tics are more involuntary and not rhythmic
Trichotillomania	Stereotypic movements	Here the repetitive behaviour is limited to hair pulling
Self-mutilation associated with certain psychotic disorders and personality disorders	Stereotypic movements	Here the symptoms are premeditated, complex, and sporadic and has a meaning for the individual within the context of the underlying, severe mental disorder (e.g., is the result of delusional thinking)
Involuntary movements associated with neurological conditions (such as Huntington's disease)	Stereotypic movements	Here the symptoms follow a typical pattern, and the signs and symptoms of the neurological condition are present

(3) Treatment

This disorder is often treatment resistant. Behavioural techniques like overcorrection are very effective. We could also employ interventions involving anxiety reduction, sensory stimulation, and the offering of alternatives to self-stimulation. Overcorrection is the best empirical treatment and it may invoke anger, oppositionalism, and symptoms substitution. Blocking pleasurable feedback from self-stimulation is another useful technique. It depends upon the sensory mode of predominant self-stimulation. For example, for rocking, a vibrator taped to the hand

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may distract from other kinesthetic self-stimulation. For finger waving, beads on a string may provide alternative proprioceptive stimulation. If there are noninjurious behaviours, extinction (ignoring the symptoms rather than giving attention) is effective. For self-injurious behaviours mildly aversive stimuli might need to be employed, for example, facial puffs of air, and sharp or sour tastes. Simple and practical management techniques, such as directing a child to head-bang on a soft surface combined with interventions for stress reduction will be effective in some cases.⁷⁶

12. Disorder of Infancy, Childhood, or Adolescence Not Otherwise Specified

(DSM-IV Code: 313.9 & ICD-10 Code: F98.9)

This category is a residual category for disorders with onset in infancy, childhood, or adolescence that do not meet criteria for any specific disorder in the classification.

13. Conclusion

Multiple comorbid diagnoses are typical in children and adolescents. All psychiatric disorders in youth can induce developmental complications. Moreover, all the etiologic factors that give rise to psychiatric disorders (biogenetic, familial, intrapsychic, interpersonal, socioeconomic, and sociocultural) can also distort, delay, or strengthen a child's development independently of the psychiatric disorders. Psychiatric treatment too interacts with all these factors, adding another dimension to the system of intermeshing forces that create and surround a child.⁷⁷

1 5

MENTAL DISORDERS DUE TO A GENERAL MEDICAL CONDITION

1. Introduction

The presence of mental symptoms that are judged to be the direct physiological consequence of a general medical condition is placed under the title 'Mental Disorders due to a General Medical Condition.' The term 'general medical condition' refers to conditions that are coded on Axis III and in popular parlance it means physical illness. Maintaining a distinction between mental disorders and general medical conditions does not imply that there are fundamental differences in their conceptualisation, that mental disorders are unrelated to physical or biological factors or processes, or that general medical conditions are unrelated to behavioural or psychosocial factors or process. Then the purpose of distinguishing general medical conditions from mental disorders is to encourage thoroughness in evaluation and to provide a shorthand term to enhance communication among health care providers.

In DSM-III-R, the Mental Disorders Due to a General Medical Condition and the Substance-Induced Disorders were called 'organic' disorders and were listed together in a single section. This differentiation of 'organic' mental disorders as a separate class implied that 'nonorganic' or 'functional' mental disorders were somehow unrelated to physical or biological factors or processes. DSM-IV eliminated the term 'organic' and distinguished those mental disorders that are due to a general medical condition from those that are substance induced and those that have no specified aetiology. The term 'primary mental disorder' is used as shorthand to indicate those mental disorders that are not due to a general medical condition and that are not substance induced.

Text and criteria for three of these disorders are given in this chapter: (i.e., Catatonic Disorder Due to a General Medical Condition, Personality Change Due to a General Medical Condition, and Mental Disorder Not Otherwise Specified Due to a General medical condition). The text and criteria for the rest that are listed below are placed in the other chapters of this book, with the disorders with which they share phenomenology.

Delirium Due to a General Medical condition, Dementia Due to a General Medical condition, and Amnesic Disorder Due to a General Medical Condition are included in the 'Delirium, Dementia, and Amnesic and Other Cognitive Disorder' chapter. Psychotic Disorder Due to a General Medical Condition is found in the chapter 'Schizophrenia and Other Psychotic Disorder.' Mood Disorder Due to a General Medical Condition is found in the chapter 'Mood Disorders.' Anxiety Disorder Due to a General Medical Condition is found in the chapter 'Anxiety Disorders.' Sexual Dysfunction Due to a General Medical Condition is found in the chapter 'Sexual and Gender Identity Disorders.' Sleep Disorder Due to a General Medical Condition is found in the chapter 'Sleep Disorders.'¹

2. Diagnostic Criteria

There are three criteria for each of the Mental Disorders Due to a General Medical Condition.

1. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.

There are no infallible guidelines for determining whether the relationship between the disturbance and the general medical condition is etiological; yet several considerations may be of help. One of the considerations is the presence of a temporal association between the onset, exacerbation, or remission of the general medical condition and that of the mental disorder (e.g., symptoms of anxiety in an individual with a parathyroid adenoma that resolve after surgical excision that restores the normal serum calcium level). One should be aware even of the exceptions. For example, Psychotic Disorder Due to Epilepsy can emerge many years after the onset of seizures.

Another consideration is the presence of features that are atypical of the primary mental disorder. The most common example is an atypical age at onset or course (e.g., first appearance of schizophrenic-like symptoms in a 75-year-old individual). A third consideration is the presence of unusual associated features (e.g., visual or tactile hallucinations accompanying major depressive-like episodes) or diagnostic features that are disproportionately more severe than would be expected given the overall presentation (e.g., a 50-pound weight loss in an individual with otherwise mild depressive symptoms might suggest the presence of a underlying general medical condition).²

2. The disturbance is not better accounted for by another mental disorder.

It is necessary to rule out primary mental disorders and mental disorders that are substance induced before making a diagnosis of a mental disorder due to a general medical condition. It is often difficult because patients with primary mental disorders commonly have co-occurring general medical conditions that are not causing the mental symptoms through direct physiological mechanisms. There may be a number of other relationships between a mental disorder and a general medical condition: the general medical condition may exacerbate the symptoms or complicate treatment of the mental disorder; the two may be related through nonphysiological mechanisms; or the co-occurrence may be coincidental. For example, when depressive symptoms are precipitated by the general medical condition acting as a psychosocial stressor, rather than resulting from the direct physiological effects of the general medical condition, the diagnosis would be Major Depressive Disorder or Adjustment Disorder With Depressed Mood. One needs to know whether the mental symptoms are caused by a drug of abuse, a medication, or toxin exposure. This is especially important because many individuals with general medical conditions receive medications that may have the potential to cause a Substance-Induced Mental Disorder.³

3. The disturbance does not occur exclusively during the course of a delirium

If symptoms (e.g., psychosis, mood, anxiety) occur only during the periods of delirium, they are considered to be associated features

of the delirium and do not warrant a separate diagnosis. These conditions (e.g., Mood Disorder Due to a General Medical Condition) can be diagnosed separately only if they occur at times other than during the delirium.⁴

3. Differential Diagnosis⁵

In Common with	Characteristics Shared	Exclusively characteristic of Mental Disorder Due to a General Medical Condition or of the disorder with which it is compared or difference between the two disorders
Primary Mental Disorder	Psychiatric symptoms	Here the etiological cause of the symptoms is other than physiological
Substance-Induced Disorder	Psychiatric symptoms	Here there is evidence of recent or prolonged use of a substance (including medications with psychoactive effects), withdrawal from a substance, or exposure to a toxin
Combined Effects of a General Medical Condition and Substance Use	Psychiatric symptoms	Delirium, dementia, psychotic, mood, anxiety, or sleep symptoms or a sexual dysfunction may be caused by the combined effects of a general medical condition and substance use. In such situations both diagnoses should be made

4. Catatonic Disorder Due to a General Medical Condition

(DSM-IV Code: 293.89 & ICD-10 Code: F06.1)

1) Diagnostic Criteria⁶

Diagnostic Criteria for Catatonic Disorder Due to ... (Indicate the General Medical Condition)

- A. The presence of catatonia as manifested by motoric immobility, excessive motor activity (that is apparently purposeless and not influenced by external stimuli), extreme negativism or mutism, peculiarities of voluntary movement, or echolalia or echopraxia.

- B. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.
- C. The disturbance is not better accounted for by another mental disorder (e.g., a Manic Episode).
- D. The disturbance does not occur exclusively during the course of a delirium.

Coding note: Include the name of the general medical condition on Axis I, e.g., 293.89 Catatonic Disorder Due to Hepatic Encephalopathy; also code the general medical condition on Axis III.

2) Differential Diagnosis⁷

In Common with	Characteristics Shared	Exclusively characteristic of Catatonic Disorder Due to a General Medical Condition or of the disorder with which it is compared or difference between the two disorders
Delirium	Catatonic symptoms	If the symptoms occur exclusively during the course of delirium, no separate diagnosis of catatonic disorder due to a general medical condition is given
Medication-Induced Movement Disorders	Catatonic symptoms	Here the patient takes neuroleptic medication which causes the symptom
Schizophrenia, Catatonic Type	Catatonic symptoms	The absence of evidence of a general medical condition etiologically related to the catatonia; and the presence of symptoms characteristic of schizophrenia (e.g., delusions, hallucinations etc.)
Mood Disorder With Catatonic Features	Catatonic symptoms	The absence of a general medical condition etiologically related to the catatonia; and the presence of symptoms that meet the criteria for a Major Depressive or Manic Episode

5. Personality Change Due to a General Medical Condition

(DSM-IV Code: 310.1 & ICD-10 Code: F07.0)

1) Diagnostic Criteria⁸

Diagnostic Criteria for Personality Change Due to ... (Indicate the General Medical Condition)

- A. A persistent personality disturbance that represents a change from the individual's previous characteristic personality pattern. In children, the disturbance involves a marked deviation from normal development or a significant change in the child's usual behaviour patterns lasting at least 1 year).
- B. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.
- C. The disturbance is not better accounted for by another mental disorder (including other Mental Disorders Due to a General Medical Condition).
- D. The disturbance does not occur exclusively during the course of a delirium and does not meet criteria for a dementia.
- E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify type:

Labile Type: if the predominant feature is affective lability

Disinhibited Type: if the predominant feature is poor impulse control as evidenced by sexual indiscretions, etc.

Aggressive Type: if the predominant feature is aggressive behaviour

Apathetic Type: if the predominant feature is marked apathy and indifference

Paranoid Type: if the predominant feature is suspiciousness or paranoid ideation

Other Type: if the predominant feature is not one of the above, e.g., personality change associated with a seizure disorder

Combined Type: if more than one feature predominates in the clinical picture

Unspecified Type

Coding note: Include the name of the general medical condition on Axis I, e.g., 310.1 Personality Change Due to Temporal Lobe Epilepsy; also code the general medical condition on Axis III.

2) Differential Diagnosis⁹

In Common with	Characteristics Shared	Exclusively characteristic of Personality Change Due to a General Medical Condition or of the disorder with which it is compared or difference between the two disorders
Dementia & Delirium	Personality change	If the symptoms occur exclusively during dementia and delirium, no separate diagnosis of Personality Change Due to a General Medical Condition is given
Another Mental Disorder Due to a General Medical Condition	Personality change	The diagnosis of Personality Change Due to a General medical Condition is not given if the disturbance is better accounted for by another mental disorder due to a general medical condition
Substance Dependence	Personality change	Here the symptoms are not etiologically related to a medical condition
Associated feature of other mental disorders (e.g., Schizophrenia, Delusional Disorder, Mood Disorders, Impulse-Control Disorders Not Elsewhere Classified, Panic Disorder)	Personality change	In these disorders, no specific physiological factor is judged to be etiologically related to the personality change
Personality Disorder	Personality change	Here the symptoms are not etiologically related to a medical condition

6. Mental Disorder Not Otherwise Specified due to a General medical Condition

(DSM-IV Code: 293.9 & ICD-10 Code: F09)

This residual category is provided for situations in which it has been established that the disturbance is caused by the direct

physiological effects of a general medical condition, but the criteria are not met for a specific Mental Disorder Due to a General Medical Condition (e.g., dissociative symptoms due to complex partial seizures).

Coding note: Include the name of the general medical condition on Axis I, e.g., 293.9 Mental Disorder Not Otherwise Specified Due to HIV Disease; also code the general medical condition on Axis III.

7. Conclusion

The Greek philosophers divided human person into body and soul. The body stood for all that is material in the human person and the soul for the spirit or mind. The fact that the body can affect our mind was well established even in the ancient times. It is precisely that connection that is evidenced in this kind of mental disorder.

8. Decision Tree for Differential Diagnosis¹⁰

Differential Diagnosis of Mental Disorders Due to a General Medical Condition

Symptoms that are due to the direct physiological effects of a general medical condition.

1. Are there disturbance of consciousness and change in cognition?

If yes, is there evidence that the disturbance has more than one aetiology (e.g., substance and general medical conditions)?

If No, then it is **Delirium Due to a General Medical Condition.**

If yes, then it is **Delirium Due to Multiple Aetiologies.**

2. If no to the 1st question, then is there memory impairment?

If yes, is there at least one additional cognitive deficit?

If No, then it is **Amnesic Disorder Due to a General Medical Condition.**

If yes, is there evidence that the disturbance has more than one aetiology (e.g., cerebrovascular disease and Alzheimer's disease)?

If yes, then **Dementia Due to Multiple Aetiologies.**

If No, is there evidence that cerebrovascular disease is etiologically related to the disturbance?

If yes, then it is **Vascular Dementia.**

If No, is the disturbance due to central nervous system condition or systemic condition known to cause dementia?

- If yes, then it is
 If no, are there gradual onset and continuing cognitive decline?
 If yes, then it is
 If no, then it is
 3. If no to the 2nd question, do prominent delusions or hallucinations predominate?
 If yes, then
 4. If no to the 3rd question, does prominent and persistent mood disturbance predominate?
 If yes, then
 5. If no to the 4th question, do prominent anxiety, panic attacks, obsessions, or compulsions predominate?
 If yes, then it is
 6. If no to the 5th question, is there a clinically significant sexual dysfunction exclusively due to a general medical condition?
 If yes, then it is
 7. If no to the 6th question, is there disturbance in sleep sufficiently severe to warrant independent clinical attention?
 If yes, then it is
 8. If no to the 7th question, is there Catatonia?
 If yes, then it is
 9. If no to the 8th question, is there change in previous personality pattern?
 If yes, then it is
 10. If no to the 9th question, are there clinically significant symptoms etiologically related to a general medical condition that do not meet criteria for a specific Mental Disorder Due to a General Medical Condition?
 If yes, then it is
 If no, then there is no mental disorder (symptoms that are not clinically significant).

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SUBSTANCE-RELATED DISORDERS

1. Introduction

The uses and abuses of psychoactive substances including alcohol, coca leaves, opium, and cannabis are as old as civilization. The Greek, Roman and biblical authors described dependence on drugs and alcohol. In recent times, the advances in communication, technology, and medicine have led to the production of new drugs, wider distribution and marketing throughout the world. Analogs of plant-derived psychoactive drugs have been designed in the laboratory and they are in epidemic use. Alcohol continues to be the psychoactive substance most frequently used and abused, and along with tobacco, poses the greatest health hazard.

The study of disorders resulting from psychoactive substances has made remarkable strides and produced promising leads for understanding the biological and psychological aspects of psychoactive chemical dependency. The term 'substance abuse' was introduced in DSM-III to designate a pattern of pathological use of at least 1 month's duration that leads to impairment in social or occupational functioning. It was distinguished from substance dependence, which required the presence of tolerance or withdrawal symptoms. In DSM-III-R, the term 'psychoactive' was added to substance abuse and substance dependence disorders in order to differentiate psychoactive substance abuse and dependence from nutritional or other adverse drug-related problems. The DSM-III-R advisory committee proposed that the definition of psychoactive substance dependence be broadened to include at least three

significant behaviours out of a nine-item list that includes psychosocial problems indicating a serious degree of involvement with the psychoactive substance.

In DSM-IV the term 'substance-related disorders' replaces psychoactive substance use disorders. This change broadens the concept to include not only the substance taken by individuals to alter mood or behaviour but also substance-induced conditions that occur as a result of the unintentional use of a substance or as a side effect of a medication.

The substance-related disorders include disorders related to the taking of a drug of abuse (including alcohol), to the side effects of a medication, and to toxin exposure. The term 'substance' can refer to a drug of abuse, a medication, or a toxin. Many prescribed and over-the-counter medications can also cause substance-related disorders. Exposure to a wide range of other chemical substances can also lead to the development of a substance-related disorder. Those toxic substances include, but are not limited to, heavy metals (e.g., lead or aluminium), rat poisons containing strychnine, pesticides containing acetylcholinesterase inhibitors, nerve gases, ethylene glycol (antifreeze), carbon monoxide, and carbon dioxide. The volatile substances (e.g., fuels, paint) are classified as 'inhalants' if they are used for the purpose of becoming intoxicated; they are considered 'toxins' if exposure is accidental or part of intentional poisoning.

The substance-related disorders are divided into two groups: the substance use disorders (substance dependence and substance abuse) and the substance-induced disorders. This chapter begins with the text and criteria sets for substance dependence, abuse, intoxication, and withdrawal that are applicable across classes of substances. Then follows the organization by class of substance and the description of the specific aspects of dependence, abuse, intoxication, and withdrawal for each class of substances.¹

2. Diagnoses associated with class of substances²

DIAGNOSES ASSOCIATED WITH CLASS OF SUBSTANCES													
Substance	Dependence	Abuse	Intoxication	Withdrawal	Intoxication and Delirium	Withdrawal Delirium	Dementia	Amnesic Disorder	Psychotic Disorders	Mood Disorders	Anxiety Disorders	Sexual Dysfunctions	Sleep Disorders
Alcohol	X	X	X	X	I	W	P	P	I/W	I/W	I/W	I	I/W
Amphetamines	X	X	X	X	I				I	I/W	I	I	I/W
Caffeine			X								I		I
Cannabis	X	X	X		I				I		I		
Cocaine	X	X	X	X	I				I	I/W	I/W	I	I/W
Hallucinogens	X	X	X		I				I*	I	I		
Inhalants	X	X	X		I		P		I	I	I		
Nicotine	X			X									
Opioids	X	X	X	X	I				I	I		I	I/W
Phencyclidine	X	X	X		I				I	I	I		
Sedatives, hypnotics, or anxiolytics	X	X	X	X	I	W	P	P	I/W	I/W	W	I	I/W
Poly substance	X												
Other	X	X	X	X	I	W	P	P	I/W	I/W	I/W	I	I/W

*Also hallucinogen persisting Perception Disorder (Flashbacks).

Note: X, I, W, I/W, or P indicates that the category is recognized in DSM-IV. In addition, I indicates that the specifier With Onset During Intoxication may be noted for the category (except for Intoxication Delirium); W indicates that the specifier with Onset During Withdrawal may be noted for the category (except for Withdrawal Delirium); and I/W indicates that either with Onset During Intoxication or With Onset During Withdrawal may be noted for the category. P indicates that the disorder is Persisting.

3. Substance Use Disorders

1) Substance Dependence³

Criteria for Substance Dependence

A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

- (1) tolerance, as defined by either of the following:
 - (a) a need for markedly increased amounts of the substance to achieve intoxication or desired effect
 - (b) markedly diminished effect with continued use of the same amount of the substance
- (2) withdrawal, as manifested by either of the following:
 - (a) the characteristic withdrawal syndrome for the substance (refer to Criteria A and B of the criteria sets for Withdrawal from the specific substances)
 - (b) the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms
- (3) the substance is often taken in larger amounts or over a longer period than was intended
- (4) there is a persistent desire or unsuccessful efforts to cut down or control substance use
- (5) a great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects
- (6) important social, occupational, or recreational activities are given up or reduced because of substance use

- (7) the substance use is continued despite knowledge of having a persistent or recurrent physical or physiological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption)

Specify if:

With Physiological Dependence: evidence of tolerance or withdrawal (i.e., either Item 1 or 2 is present) or Without Physiological Dependence: no evidence of tolerance or withdrawal (i.e., neither Item 1 nor 2 is present)

Course specifiers: Early Full Remission or Early Partial Remission or Sustained Full Remission or Sustained Partial Remission or On Agonist Therapy or In a Controlled Environment

Course Specifiers

Early Full Remission: This specifier is used if, for at least 1 month, but for less than 12 months, no criteria for Dependence or Abuse have been met.

Early Partial Remission: This specifier is used if, for at least 1 month, but less than 12 months, one or more criteria for Dependence or Abuse have been met (but the full criteria for Dependence have not been met).

Sustained Full Remission: This specifier is used if none of the criteria for Dependence or Abuse have been met at any time during a period of 12 months or longer.

Sustained Partial Remission: This specifier is used if full criteria for Dependence have not been met for a period of 12 months or longer; however, one or more criteria for Dependence or Abuse have been met.

On Agonist Therapy: This specifier is used if the individual is on a prescribed agonist medication, and no criteria for Dependence or Abuse have been met for that class of medication for at least the past month (except tolerance to, or withdrawal from, the agonist). This category also applies to those being treated for Dependence using a partial agonist or an agonist/antagonist.

In a Controlled Environment: This specifier is used if the individual is in an environment where access to alcohol and controlled substances is restricted, and no criteria for Dependence or Abuse have been met for at least the past month. Examples of these environments are closely supervised and substance-free jails, therapeutic communities, or locked hospital units.

2) Substance Abuse⁴

Criteria for Substance Abuse

- A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:
 - (1) recurrent substance use resulting in a failure to fulfil major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)
 - (2) recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)
 - (3) recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)
 - (4) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)
- B. The symptoms have never met the criteria for Substance Dependence for this class of substance.

4. Substance-Induced Disorders

1) Substance Intoxication⁵

Criteria for Substance Intoxication

- A. The development of a reversible substance-specific syndrome due to recent ingestion of (or exposure to) a substance. Note: Different substances may produce similar or identical syndromes.
- B. Clinically significant maladaptive behavioural or psychological changes that are due to the effect of the substance on the central nervous system (e.g., belligerence, mood lability, cognitive impairment, impaired judgement, impaired social or occupational functioning) that develop during or shortly after use of the substance.
- C. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder

2) Substance Withdrawal⁶

Criteria for Substance Withdrawal

- A. The development of a substance-specific syndrome due to the cessation of (or reduction in) substance use that has been heavy and prolonged.
- B. The substance-specific syndrome causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

5. Alcohol-Related Disorders

1) Alcohol Use Disorders

(1) Alcohol Dependence

(DSM-IV Code: 303.90 & ICD-10 Code: F10.2x)

Refer to the text and criteria for Substance Dependence

(2) Alcohol Abuse

(DSM-IV Code: 305.00 & ICD-10 Code: F10.1)

Refer to the text and criteria for Substance Abuse

2) Alcohol-Induced Disorders

(1) Alcohol Intoxication⁷

(DSM-IV Code: 303.00 & ICD-10 Code: F10.00)

Refer also to the text and criteria for Substance Intoxication.

Diagnostic Criteria for Alcohol Intoxication

- A. Recent ingestion of alcohol.
- B. Clinically significant maladaptive behavioural or psychological changes (e.g., inappropriate sexual or aggressive behaviour, mood lability, impaired judgement, impaired social or occupational functioning) that developed during, or shortly after, alcohol ingestion.
- C. One (or more) of the following signs, developing during, or shortly after alcohol use:

- (1) slurred speech
 - (2) incoordination
 - (3) unsteady gait
 - (4) nystagmus
 - (5) impairment in attention or memory
 - (6) stupor or coma
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder

(2) Alcohol Withdrawal⁸

(DSM-IV Code: 291.8 & ICD-10 Code: F10.3)

Refer also to the text and criteria for Substance Withdrawal.

Diagnostic Criteria for Alcohol Withdrawal

- A. Cessation of (or reduction in) alcohol use that has been heavy and prolonged.
- B. Two (or more) of the following, developing within several hours to a few days after Criterion A:
 - (1) autonomic hyperactivity (e.g., sweating or pulse rate greater than 100)
 - (2) increased hand tremor
 - (3) insomnia
 - (4) nausea or vomiting
 - (5) transient visual, tactile, or auditory hallucinations or illusions
 - (6) psychomotor agitation
 - (7) anxiety
 - (8) grand mal seizures
- C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

Specify if:

With Perceptual Disturbances

Specifier

With Perceptual Disturbances: This specifier may be noted when hallucinations with intact reality testing or auditory, visual, or tactile illusions occur in the absence of a delirium. 'Intact reality testing' means that the person knows that the hallucinations are induced by the substance and do not represent external reality. When hallucinations occur in the absence of intact reality testing, a diagnosis of Substance-Induced Psychotic Disorder, With Hallucinations, should be considered. (This specifier is to be used whenever it is applicable with regard to any substance intoxication or withdrawal.)

3) Alcohol-Related Disorder Not Otherwise Specified

(DSM-IV Code: 291.9 & ICD-10 Code: F10.9)

This category is meant for disorders that cannot be classified

6. Amphetamine (Or Amphetamine-Like)-Related Disorders

1) Amphetamine Use Disorders

(1) Amphetamine Dependence

(DSM-IV Code: 304.40 & ICD-10 Code: F15.2x)

Refer to the text and criteria for Substance Dependence

(2) Amphetamine Abuse

(DSM-IV Code: 305.70 & ICD-10 Code: F15.1)

Refer to the text and criteria for Substance Abuse

2) Amphetamine-Induced Disorders

(1) Amphetamine Intoxication⁹

(DSM-IV Code: 292.89 & ICD-10 Code: F15.00)

Refer also to the text and criteria for Substance Intoxication.

Diagnostic Criteria for Amphetamine Intoxication

- A. Recent use of amphetamine or a related substance (e.g., methylphenidate).
- B. Clinically significant maladaptive behavioural or psychological changes (e.g., euphoria or affective blunting; changes in sociabil-

ity; hypervigilance; interpersonal sensitivity; anxiety, tension, or anger; stereotyped behaviours; impaired judgement; or impaired social or occupational functioning) that developed during, or shortly after, use of amphetamine or a related substance.

- C. Two (or more) of the following, developing during, or shortly after, use of amphetamine or a related substance:
- (1) tachycardia or bradycardia
 - (2) pupillary dilation
 - (3) elevated or lowered blood pressure
 - (4) perspiration or chills
 - (5) nausea or vomiting
 - (6) evidence of weight loss
 - (7) psychomotor agitation or retardation
 - (8) muscular weakness, respiratory depression, chest pain, or cardiac arrhythmias
 - (9) confusion, seizures, dyskinesias, dystonias, or coma
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

Specify if:

With Perceptual Disturbances

(2) Amphetamine Withdrawal¹⁰

(DSM-IV Code: 292.0 & ICD-10 Code: F15.3)

Refer also to the text and criteria for Substance Withdrawal.

Diagnostic Criteria for Amphetamine Withdrawal

- A. Cessation of (or reduction in) amphetamine (or a related substance) use that has been heavy and prolonged.
- B. Dysphoric mood and two (or more) of the following physiological changes, developing within a few hours to several days after Criterion A:
- (1) fatigue
 - (2) vivid, unpleasant dreams
 - (3) insomnia or hypersomnia
 - (4) increased appetite

(5) psychomotor retardation or agitation

- C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

3) Amphetamine-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F15.9)

This category is meant for disorders that cannot be classified

7. Caffeine-Related Disorders

1) Caffeine-Induced Disorders¹¹

(1) Caffeine Intoxication

(DSM-IV Code: 305.90 & ICD-10 Code: F15.00)

Refer also to the text and criteria for Substance Intoxication.

Diagnostic Criteria for Caffeine Intoxication

- A. Recent consumption of caffeine, usually in excess of 250mg (e.g., more than 2-3 cups of brewed coffee).
- B. Five (or more) of the following signs, developing during, or shortly after, caffeine use:
- (1) restlessness
 - (2) nervousness
 - (3) excitement
 - (4) insomnia
 - (5) flushed face
 - (6) diuresis
 - (7) gastrointestinal disturbance
 - (8) muscle twitching
 - (9) rambling flow of thought and speech
 - (10) tachycardia or cardiac arrhythmia
 - (11) periods of inexhaustibility
 - (12) psychomotor agitation

- C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder (e.g., an Anxiety Disorder).

2) Caffeine-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F15.9)

This category is meant for disorders that cannot be classified

8. Cannabis-Related Disorders

1) Cannabis Use Disorders

(1) Cannabis Dependence

(DSM-IV Code: 304.30 & ICD-10 Code: F12.2x)

Refer to the text and criteria for Substance Dependence

(2) Cannabis Abuse

(DSM-IV Code: 305.20 & ICD-10 Code: F12.1)

Refer to the text and criteria for Substance Abuse

2) Cannabis-Induced Disorders

(1) Cannabis Intoxication¹²

(DSM-IV Code: 304.30 & ICD-10 Code: F12.00)

Refer also to the text and criteria for Substance Intoxication

Diagnostic Criteria for Cannabis Intoxication

- A. Recent use of cannabis.
- B. Clinically significant maladaptive behaviour or psychological changes (e.g., impaired motor coordination, euphoria, anxiety, sensation of slowed time, impaired judgement, social withdrawal) that developed during, or shortly after, cannabis use.
- C. Two (or more) of the following signs, developing within 2 hours of cannabis use:

- (1) conjunctival injection
- (2) increased appetite
- (3) dry mouth
- (4) tachycardia

- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder

Specify if:

With Perceptual Disturbances

3) Cannabis-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F12.9)

This category is meant for disorders that cannot be classified

9. Cocaine-Related Disorders

1) Cocaine Use Disorders

(1) Cocaine Dependence

(DSM-IV Code: 304.20 & ICD-10 Code: F14.2x)

Refer to the text and criteria for Substance Dependence.

(2) Cocaine Abuse

(DSM-IV Code: 305.60 & ICD-10 Code: F14.1)

Refer to the text and criteria for Substance Abuse.

2) Cocaine-Induced Disorders

(1) Cocaine Intoxication¹³

(DSM-IV Code: 292.89 & ICD-10 Code: F14.00)

Refer also to the text and criteria for Substance Intoxication.

Diagnostic Criteria for Cocaine Intoxication

- A. Recent use of cocaine.
- B. Clinically significant maladaptive behavioural or psychological changes (e.g., euphoria or affective blunting; changes in sociability; hypervigilance; interpersonal sensitivity; anxiety, tension, or anger; stereotyped behaviours; impaired judgement; or impaired social or occupational functioning) that developed during, or shortly after, use of cocaine.

- C. Two (or more) of the following, developing during, or shortly after cocaine use:
- (1) tachycardia or bradycardia
 - (2) pupillary dilation
 - (3) elevated or lowered blood pressure
 - (4) perspiration or chills
 - (5) nausea or vomiting
 - (6) evidence of weight loss
 - (7) psychomotor agitation or retardation
 - (8) muscular weakness, respiratory depression, chest pain, or cardiac arrhythmias
 - (9) confusion, seizures, dyskinesias, dystonias, or coma
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

Specify if:

With Perceptual Disturbance

(2) Cocaine Withdrawal¹⁴

(DSM-IV Code: 292.0 & ICD-10 Code: F14.3)

Refer also to the text and criteria for Substance Withdrawal.

Diagnostic Criteria for Cocaine Withdrawal

- A. Cessation of (or reduction in) cocaine use that has been heavy and prolonged.
- B. Dysphoric mood and two (or more) of the following physiological changes, developing within a few hours to several days after Criterion A:
 - (1) fatigue
 - (2) vivid, unpleasant dreams
 - (3) insomnia or hypersomnia
 - (4) increased appetite
 - (5) psychomotor retardation or agitation
- C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

3) Cocaine-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F14.9)

This category is meant for disorders that cannot be classified.

10. Hallucinogen-Related Disorders

1) Hallucinogen Use Disorders

(1) Hallucinogen Dependence

(DSM-IV Code: 304.50 & ICD-10 Code: F16.2x)

Refer to the text, criteria and course specifiers for Substance Dependence.

(2) Hallucinogen Abuse

(DSM-IV Code: 305.50 & ICD-10 Code: F16.1)

Refer to the text and criteria for Substance Abuse.

2) Hallucinogen-Induced Disorders

(1) Hallucinogen Intoxication¹⁵

(DSM-IV Code: 292.89 & ICD-10 Code: F16.00)

Refer also to the text and criteria for Substance Intoxication.

Diagnostic Criteria for Hallucinogen Intoxication

- A. Recent use of a hallucinogen.
- B. Clinically significant maladaptive behavioural or psychological changes (e.g., marked anxiety or depression, ideas of reference, fear of losing one's mind, paranoid ideation, impaired judgement, or impaired social or occupational functioning) that developed during, or shortly after hallucinogen use.
- C. Perceptual changes occurring in a state of full wakefulness and alertness (e.g., subjective intensification of perceptions, depersonalisation, derealization, illusions, hallucinations, synesthesias) that developed during, or shortly after, hallucinogen use.
- D. Two (or more) of the following signs, developing during, or shortly after, hallucinogen use:
 - (1) pupillary dilation
 - (2) tachycardia
 - (3) sweating

- (4) palpitations
- (5) blurring of vision
- (6) tremors
- (7) incoordination

E. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

(2) Hallucinogen Persisting Perception Disorder (Flashbacks)¹⁶

(DSM-IV Code: 292.8 & ICD-10 Code: F16.70)

Diagnostic Criteria for Hallucinogen Persisting Perception Disorder (Flashbacks)

- A. The reexperiencing, following cessation of use of a hallucinogen, of one or more of the perceptual symptoms that were experienced while intoxicated with the hallucinogen (e.g., geometric hallucinations, false perceptions of movement in the peripheral visual fields, flashes of colour, intensified colours, trails of images of moving objects, positive afterimages, halos around objects, macropsia, and micropsia).
- B. The symptoms in Criteria A cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The symptoms are not due to a general medical condition (e.g., anatomical lesions and infections of the brain, visual epilepsies) and are not better accounted for by another mental disorder (e.g., delirium, dementia, schizophrenia) or hypnopompic hallucinations.

3) Hallucinogen-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F16.9)

This category is meant for disorders that cannot be classified.

11. Inhalant-Related Disorders

1) Inhalant Use Disorders

(1) Inhalant Dependence

(DSM-IV Code: 304.60 & ICD-10 Code: F18.2x)

Refer to the text, criteria and course specifiers for Substance Dependence.

(2) Inhalant Abuse

(DSM-IV Code: 305.90 & ICD-10 Code: F18.1)

Refer to the text and criteria for Substance Abuse.

(2) Inhalant-Induced Disorders

(1) Inhalant Intoxication¹⁷

(DSM-IV Code: 292.89 & ICD-10 Code: F18.00)

Refer also to the text and criteria for substance Intoxication.

Diagnostic Criteria for Inhalant Intoxication

- A. Recent intentional use or short-term, high-dose exposure to volatile inhalants (excluding anesthetic gases and short-acting vasodilators).
- B. Clinically significant maladaptive behaviour or psychological changes (e.g., belligerence, assaultiveness, apathy, impaired judgement, impaired social or occupational functioning) that developed during, or shortly after, use of or exposure to volatile inhalants.
- C. Two (or more) of the following signs, developing during, or shortly after, inhalant use or exposure:
 - (1) dizziness
 - (2) nystagmus
 - (3) incoordination
 - (4) slurred speech
 - (5) unsteady gait
 - (6) lethargy
 - (7) depressed reflexes
 - (8) psychomotor retardation
 - (9) tremor
 - (10) generalized muscle weakness
 - (11) blurred vision or diplopia
 - (12) stupor or coma
 - (13) euphoria
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder

3) Inhalant-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F18.9)

This category is meant for disorders that cannot be classified.

12. Nicotine-Related Disorders

1) Nicotine Use Disorder

(1) Nicotine Dependence

(DSM-IV Code: 305.10 & ICD-10 Code: F17.2x)

Refer to the text, criteria, and specifiers for Substance Dependence.

2) Nicotine-Induced Disorder

(1) Nicotine Withdrawal¹⁸

(DSM-IV Code: 292.0 & ICD-10 Code: F17.3)

Refer also to the text and criteria for Substance Withdrawal.

Diagnostic Criteria for Nicotine Withdrawal

- A. Daily use of nicotine for at least several weeks.
- B. Abrupt cessation of nicotine use, or reduction in the amount of nicotine used, followed within 24 hours by four (or more) of the following signs:
 - (1) dysphoric or depressed mood
 - (2) insomnia
 - (3) irritability, frustration, or anger
 - (4) anxiety
 - (5) difficulty concentrating
 - (6) restlessness
 - (7) decreased heart rate
 - (8) increased appetite or weight gain
- C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

3) Nicotine-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F17.9)

This category is meant for disorders that cannot be classified.

13. Opioid-Related Disorders

1) Opioid Use Disorders

(1) Opioid Dependence

(DSM-IV Code: 304.0 & ICD-10 Code: F11.2x)

Refer to the text, criteria and specifiers for Substance Dependence.

(2) Opioid Abuse

(DSM-IV Code: 305.50 & ICD-10 Code: F11.1)

Refer to the text and criteria for Substance Abuse.

2) Opioid-Induced Disorders

(1) Opioid Intoxication¹⁹

(DSM-IV Code: 292.89 & ICD-10 Code: F11.00)

Refer also to the text and criteria for Substance Intoxication.

Diagnostic Criteria for Opioid Intoxication

- A. Recent use of an opioid.
- B. Clinically significant maladaptive behavioural or psychological changes (e.g., initial euphoria followed by apathy, dysphoria, psychomotor agitation or retardation, impaired judgement, or impaired social or occupational functioning) that developed during, or shortly after, opioid use.
- C. Pupillary constriction (or pupillary dilation due to anoxia from severe overdose) and one (or more) of the following signs, developing during, or shortly after, opioid use:
 - (1) drowsiness or coma
 - (2) slurred speech
 - (3) impairment in attention or memory
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

Specify if:

With Perceptual Disturbances

(2) Opioid Withdrawal²⁰

(DSM-IV Code: 292.0 & ICD-10 Code: F11.3)

Refer also to the text and criteria for Substance Withdrawal.

Diagnostic Criteria for Opioid Withdrawal

- A. Either of the following:
- (1) cessation of (or reduction in) opioid use that has been heavy and prolonged (several weeks or longer)
 - (2) administration of an opioid antagonist after a period of opioid use
- B. Three (or more) of the following, developing within minutes to several days after Criterion A:
- (1) dysphoric mood
 - (2) nausea or vomiting
 - (3) muscle aches
 - (4) lacrimation or rhinorrhea
 - (5) pupillary dilation, piloerection, or sweating
 - (6) diarrhoea
 - (7) yawning
 - (8) fever
 - (9) insomnia
- C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

3) Opioid-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F11.9)

This category is meant for disorders that cannot be classified.

14. Phencyclidine (Or Phencyclidine-Like)-Related Disorders**1) Phencyclidine Use Disorders****(1) Phencyclidine Dependence**

(DSM-IV Code: 304.90 & ICD-10 Code: F19.2x)

Refer to the text, criteria and specifiers for Substance Dependence.

(2) Phencyclidine Abuse

(DSM-IV Code: 305.90 & ICD-10 Code: F19.1)

Refer to the text and criteria for Substance Abuse.

2) Phencyclidine-Induced Disorders**(1) Phencyclidine Intoxication²¹**

(DSM-IV Code: 292.89 & ICD-10 Code: F19.00)

Refer also to the text and criteria for Substance Intoxication.

Diagnostic Criteria for Phencyclidine Intoxication

- A. Recent use of phencyclidine (or a related substance).
- B. Clinically significant maladaptive behavioural changes (e.g., belligerence, assaultiveness, impulsiveness, unpredictability, psychomotor agitation, impaired judgement, or impaired social or occupational functioning) that developed during, or shortly after, phencyclidine use.
- C. Within an hour (less when smoked, 'snorted,' or used intravenously), two (or more) of the following signs:
- (1) vertical or horizontal nystagmus
 - (2) hypertension or tachycardia
 - (3) numbness or diminished responsiveness to pain
 - (4) ataxia
 - (5) dysarthria
 - (6) muscle rigidity
 - (7) seizures or coma
 - (8) hyperacusis
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

Specify if:

With Perceptual Disturbances

3) Phencyclidine-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F19.9)

This category is meant for disorders that cannot be classified.

15. Sedative -, Hypnotic -, or Anxiolytic - Related Disorders

1) Sedative, Hypnotic, or Anxiolytic Use Disorders

(1) Sedative, Hypnotic, or Anxiolytic Dependence

(DSM-IV Code: 30410 & ICD-10 Code: F13.2x)

Refer to the text, criteria, and specifiers for Substance Dependence.

(2) Sedative, Hypnotic, or Anxiolytic Abuse

(DSM-IV Code: 305.40 & ICD-10 Code: F13.1)

Refer to the text and criteria for substance Abuse.

2) Sedative-, Hypnotic-, or Anxiolytic-Induced Disorders

(1) Sedative, Hypnotic, or Anxiolytic Intoxication²²

(DSM-IV Code: 292.89 & ICD-10 Code: F13.00)

Refer also to the text and criteria for Substance Intoxication.

Diagnostic Criteria for Sedative, Hypnotic, or Anxiolytic Intoxication

- A. Recent use of a sedative, hypnotic, or anxiolytic.
- B. Clinically significant maladaptive behavioural or psychological changes (e.g., inappropriate sexual or aggressive behaviour, mood lability, impaired judgement, impaired social or occupational functioning) that developed during, or shortly after, sedative, hypnotic, or anxiolytic use.
- C. One (or more) of the following signs, developing during, or shortly after, sedative, hypnotic, or anxiolytic use:
 - (1) slurred speech
 - (2) incoordination
 - (3) unsteady gait
 - (4) nystagmus
 - (5) impairment in attention or memory
 - (6) stupor or coma
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

(2) Sedative, Hypnotic, or Anxiolytic Withdrawal²³

(DSM-IV Code: 292.0 & ICD-10 Code: F13.3)

Refer also to the text criteria for Substance Withdrawal.

Diagnostic Criteria for Sedative, Hypnotic, or Anxiolytic Withdrawal

- A. Cessation of (or reduction in) sedative, hypnotic, or anxiolytic use that has been heavy and prolonged.
- B. Two (or more) of the following, developing within several hours to a few days after Criterion A:
 - (1) autonomic hyperactivity (e.g., sweating or pulse rate greater than 100)
 - (2) increased hand tremor
 - (3) insomnia
 - (4) nausea or vomiting
 - (5) transient visual, tactile, or auditory hallucinations or illusions
 - (6) psychomotor agitation
 - (7) anxiety
 - (8) grand mal seizures
- C. The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

Specify if:

With Perceptual Disturbances

3) Sedative-, Hypnotic-, or Anxiolytic-Related Disorder Not Otherwise Specified

(DSM-IV Code: 292.9 & ICD-10 Code: F13.9)

This category is meant for disorders that cannot be classified.

16. Polysubstance-Related Disorder

1) Polysubstance Dependence

(DSM-IV Code: 304.80 & ICD-10 Code: F19.2x)

This diagnosis is reserved for behaviour during the same 12-month period in which the person was repeatedly using at least

three groups of substances (not including caffeine and nicotine), but no single substance predominated. Further, during this period, the dependence criteria were met for substances as a group but not for any specific substance.²⁴

17. Conclusion

Psychoactive substance use disorders are major public health problems that are frequently underdiagnosed and undertreated. Increased public awareness is leading to efforts at locating high-risk populations, providing early treatment, designing effective social policies aimed at prevention, and improving differential therapeutics. But the scenario will continue to plague humankind as it has existed from the beginning of civilization. It is a question of how best we are going to safeguard the well being of humankind.²⁵

18. Decision Tree for Differential Diagnosis²⁶

Differential Diagnosis of Substance-Induced Disorders

(Not including Dependence and Abuse)

Symptoms that are due to the direct physiological effects of a substance (i.e., a drug of abuse, a medication, or a toxin)

- Are there a disturbance of consciousness and a change in cognition that are in excess of that usually seen in intoxication or withdrawal and that warrant independent clinical attention?
If yes, is there evidence that the disturbance has more than one aetiology (e.g., substance and general medical condition)?
If yes, then it is **Delirium Due to Multiple Aetiologies.**
If no, is the onset of delirium during withdrawal from a substance?
If no, then it is **Substance Induced Intoxication Delirium.**
If yes, then it is **Substance-Induced Withdrawal Delirium.**
- If no to the 1st question, is there persistent memory impairment?
If yes, is there at least one additional cognitive deficit?
If no, then it is **Substance-Induced Persisting Amnesic Disorder.**
If yes, is there evidence that the disturbance has more than one aetiology (e.g., substance and general medical condition)?
If no, then it is **Substance-Induced Persisting Dementia.**
If yes, then it is **Dementia Due to Multiple Aetiologies.**

- If no to the 2nd question, do delusions or hallucinations predominate, are in excess of that usually seen in intoxication or withdrawal, and warrant independent clinical attention?
If yes, then it is **Substance-Induced Psychotic Disorder.** Specify if onset during intoxication or withdrawal.
- If no to the 3rd question, does a mood disturbance predominate, is in excess of that usually seen in intoxication or withdrawal, and warrants independent clinical attention?
If yes, then it is **Substance-Induced Mood Disorder.** Specify if onset during intoxication or withdrawal.
- If no to the 4th question, do anxiety, panic attacks, or obsessions or compulsions predominate; are in excess of that usually seen in intoxication or withdrawal; and warrant independent clinical attention?
If yes, then it is **Substance-Induced Anxiety Disorder.** Specify if onset during intoxication or withdrawal.
- If no to the 5th question, is there a clinically significant sexual dysfunction exclusively due to a substance, is in excess of that usually seen in intoxication, and warrants independent clinical attention?
If yes, then it is **Substance-Induced Sexual Dysfunction.**
- If no to the 6th question, is there a disturbance in sleep that is sufficiently severe to warrant independent clinical attention and is in excess of that usually seen in intoxication or withdrawal?
If yes, then it is **Substance-Induced Sleep Disorder.** Specify if onset during intoxication or withdrawal.
- If no to the 7th question, is there a development of a reversible syndrome due to recent use of a substance?
If yes, then it is **Substance Intoxication.**
- If no to the 8th question, is there a development of a syndrome due to reduction or cessation of use of a substance?
If yes, then it is **Substance Withdrawal.**
- If no to the 9th question, are there clinically significant symptoms due to a substance that do not meet criteria for one of the Substance-Induced Disorders?
If yes, then it is **Substance-Related Disorder NOS.**
- If no to the 10th question, then it is No Substance-Induced Disorder (substance-induced symptoms that are not clinically significant)

1 7

OTHER CONDITIONS THAT MAY BE A FOCUS OF CLINICAL ATTENTION

1. Introduction

This chapter covers other conditions or problems that may be a focus of clinical attention. These are related to the mental disorders described previously in this book in one of the following ways: 1. the problem is the focus of diagnosis or treatment and the individual has no mental disorder (e.g., a Partner Relationship Problem in which neither partner has symptoms that meet criteria for a mental disorder, in which case only the Partner Relational Problem is coded); 2. the individual has a mental disorder but is unrelated to the problem (e.g., a Partner Relational Problem in which one of the partners has an incidental Specific Phobia, in which case both can be coded); 3. the individual has a mental disorder that is related to the problem, but the problem is sufficiently severe to warrant independent clinical attention (e.g., a Partner Relational Problem sufficiently problematic to be a focus of treatment that is also associated with Major Depressive Disorder in one of the partners, in which case both can be coded). The conditions and problems in this chapter are coded on Axis I.

2. Psychological Factors Affecting Medical Condition

(DSM-IV Code: 316 & ICD-10 Code: F54)

1) Diagnostic Criteria¹

... (Specified Psychological Factor) Affecting... (Indicate the General Medical Condition)

A. A general medical condition (coded on Axis III) is present.

- B. Psychological factors adversely affect the general medical condition in one of the following ways:
- (1) the factors have influenced the course of the general medical condition as shown by a close temporal association between the psychological factors and the development or exacerbation of, or delayed recovery from, the general medical condition
 - (2) the factors interfere with the treatment of the general medical condition
 - (3) the factors constitute additional health risks for the individual
 - (4) stress-related physiological responses precipitate or exacerbate symptoms of the general medical condition

Choose name based on the nature of the psychological factors (if more than one factor is present, indicate the most prominent):

Mental Disorder Affecting ... (Indicate the General Medical Condition) (e.g., an Axis I disorder such as Major Depressive Disorder delaying recovery from a myocardial infarction)

Psychological Symptoms Affecting ... (indicate the General Medical condition) (e.g., depressive symptoms delaying recovery from surgery; anxiety exacerbating asthma)

Personality Traits or Coping Style Affecting ... (Indicate the General Medical condition) (e.g., pathological denial of the need for surgery in a patient with cancer; hostile, pressured behaviour contributing to cardiovascular disease)

Maladaptive Health Behaviours Affecting ... (Indicate the General Medical Condition) (e.g., overeating; lack of exercise; unsafe sex)

Stress-Related Physiological Response Affecting ... (Indicate the General Medical Condition) (e.g., stress-related exacerbations of ulcer, hypertension, arrhythmia, or tension headache)

Other or Unspecified Psychological Factors Affecting ... (Indicate the General Medical condition) (e.g., interpersonal, cultural, or religious factors)

2) Differential Diagnosis²

In Common with	Characteristics Shared	Exclusively characteristic of Psychological Factors Affecting Medical Condition or of the disorder with which it is compared or the difference between the two disorders

Mental Disorder Due to a General Medical Condition	A temporal association between symptoms of a mental disorder and a general medical condition	Here the general medical condition causes the mental disorder unlike psychological factors affecting the medical condition
Substance Use Disorders	Affecting the prognosis of general medical condition	If the substance use disorder coexists then that too must be mentioned in the diagnosis
Somatoform Disorders	Presence of both psychological factors and physical symptoms	Here there is no general medical condition that can completely account for the physical symptoms

3. Medication-Induced Movement Disorders³

In this section Medication-Induced Movement Disorders are included because of their importance in 1. the management by medication of mental disorders or general medical conditions; 2. the differential diagnosis with Axis I disorders (e.g., Anxiety Disorder versus Neuroleptic-Induced Akathisia; Catatonia versus Neuroleptic Malignant Syndrome). Although these disorders are labelled 'medication induced,' it is often difficult to establish the causal relationship between medication exposure and the development of the movement disorder, especially because some of these movement disorders also occur in the absence of medication exposure. The term 'neuroleptic' is used broadly in this book to refer to medications with dopamine-antagonist properties. These include so-called 'typical' antipsychotic agents, 'atypical' antipsychotic agents, certain dopamine receptor blocking drugs, and amoxapine.

1) Neuroleptic-Induced Parkinsonism

(DSM-IV Code: 332.1 & ICD-10 Code: G21.0)

Parkinsonian tremor, muscular rigidity, or akinesia developing within a few weeks of starting or raising the dose of a neuroleptic medication (or after reducing a medication used to treat extrapyramidal symptoms).

2) Neuroleptic Malignant Syndrome

(DSM-IV Code: 333.92 & ICD-10 Code:G21.0)

Severe muscle rigidity, elevated temperature, and other related findings (e.g., diaphoresis, dysphagia, incontinence, change in level of consciousness ranging from confusion to coma, mutism, elevated or labile blood pressure, elevated creatine phosphokinase) developing in association with the use of neuroleptic medication.

3) Neuroleptic-Induced Acute Dystonia

(DSM-IV Code: 333.7 & ICD-10 Code:G24.0)

Abnormal positioning or spasm of the muscles of the head, neck, limbs, or trunk, developing within a few days of starting or raising the dose of a neuroleptic medication (or after reducing a medication used to treat extrapyramidal symptoms).

4) Neuroleptic-induced acute akathisia

(DSM-IV Code: 333.99 & ICD-10 Code:G21.1)

Subjective complaints of restlessness accompanied by observed movements (e.g., fidgety movements of the legs, rocking from foot to foot, pacing, or inability to sit or stand still) developing within a few weeks of starting or raising the dose of a neuroleptic medication (or after reducing a medication used to treat extrapyramidal symptoms).

5) Neuroleptic-Induced Tardive Dyskinesia

(DSM-IV Code: 333.82 & ICD-10 Code:G.24.0)

Involuntary choreiform, athetoid, or rhythmic movements (lasting at least a few weeks) of the tongue, jaw, or extremities developing in association with the use of neuroleptic medication for at least a few months (may be for a shorter period of time in elderly persons).

6) Medication-Induced Postural Tremor

(DSM-IV Code: 333.1 & ICD-10 Code:G25.1)

Fine tremor occurring during attempts to maintain a posture that develops in association with the use of medication (e.g., lithium, antidepressants, valproate).

7) Medication-Induced Movement Disorder Not Otherwise Specified

(DSM-IV Code: 333.90 & ICD-10 Code:G25.9)

This category is included for Medication-Induced Movement Disorders not classified by any of the specific disorders listed above. Examples are 1. parkinsonism, acute akathisia, acute dystonia, or dyskinetic movement that is associated with a medication other than a neuroleptic; 2. a presentation that resembles neuroleptic malignant syndrome that is associated with a medication other than a neuroleptic; or 3. tardive dystonia.

4. Other Medication-Induced Disorder

1) Adverse Effects of Medication Not Otherwise Specified

(DSM-IV Code: 995.2 & ICD-10 Code: T88.7)

This category is meant for optional use by clinicians to code side effects of medication (other than movement symptoms) when these adverse effects become a main focus of clinical attention. Examples are severe hypotension, cardiac arrhythmias, and priapism.

5. Relational Problems⁴

Relational problems include patterns of interaction between or among members of a relational unit that are associated with clinically significant impairment in functioning, or symptoms among one or more members of the relational unit, or impairment in the functioning of the relational unit itself.

1) Relational Problem Related to a Mental Disorder or General Medical Condition

(DSM-IV Code: V61.9 & ICD-10 Code: Z63.7)

This category is meant to be used when the focus of clinical attention is a pattern of impaired interaction that is associated with a mental disorder or a general medical condition in a family member.

2) Parent Child Relational Problem

(DSM-IV Code: V61.20 & ICD-10 Code: Z63.8)

This category is to be used when the focus of clinical attention is a pattern of interaction between parent and child (e.g., impaired communication, overprotection, inadequate discipline) that is associated with clinically significant impairment in individual or family functioning or the development of clinically significant symptoms in parent or child.

3) Partner Relational Problem

(DSM-IV Code: V61.1 & ICD-10 Code: Z63.0)

This category is to be used when the focus of clinical attention is a pattern of interaction between spouses or partners characterized by negative communication (e.g., criticisms), distorted communication (e.g., unrealistic expectations), or noncommunication (e.g., withdrawal) that is associated with clinically significant impairment in individual or family functioning or the development of symptoms in one or both partners.

4) Sibling Relational Problem

(DSM-IV Code: V61.8 & ICD-10 Code: F93.3)

This category should be used when the focus of clinical attention is a pattern of interaction among siblings that is associated with clinically significant impairment in individual or family functioning; or the development of symptoms in one or more of the siblings.

5) Relational Problem Not Otherwise Specified

(DSM-IV Code: V62.81 & ICD-10 Code: Z63.9)

This category is to be used when the focus of clinical attention is on relational problems that are not classifiable by any of the specific problems listed above (e.g., difficulties with co-workers).

6. Problems Related to Abuse or Neglect

This section includes categories that should be used when the focus of clinical attention is severe mistreatment of one individual by another through physical abuse, sexual abuse, or child

neglect. The appropriate V code applies if the focus of attention is on the perpetrator of the abuse or neglect or on the relational unit in which it occurs. If the individual being evaluated or treated is the victim of the abuse or neglect, code 995.5 for a child or 995.81 for an adult.⁵

1) Physical Abuse of Child

(DSM-IV Code: V61.21 & ICD-10 Code: T74.1)

2) Sexual abuse of child

(DSM-IV Code: V61.21 & ICD-10 Code: T74.2)

3) Neglect of Child

(DSM-IV Code: V61.21 & ICD-10 Code: T74.0)

4) Physical Abuse of Adult

(DSM-IV Code: V61.1 & ICD-10 Code: T74.1)

5) Sexual Abuse of Adult

(DSM-IV Code: V61.1 & ICD-10 Code: T74.2)

7. Additional Conditions That May Be a Focus of Clinical Attention

1) Noncompliance With Treatment

(DSM-IV Code: V15.81 & ICD-10 Code: Z91.1)

This category is meant to be used when the focus of clinical attention is noncompliance with an important aspect of the treatment for a mental disorder or a general medical condition. The reasons for noncompliance may include discomfort resulting from treatment (e.g., medication side effects), expense of treatment, decisions based on personal value judgements or religious or cultural beliefs about the advantages and disadvantages of the proposed treatment, maladaptive personality traits or coping styles (e.g., denial of illness), or the presence of a mental disorder (e.g., schizophrenia, avoidant personality disorder). This category should be used only when the problem is sufficiently severe to warrant independent clinical attention.⁶

2) Malingering⁷

(DSM-IV Code: V65.2 & ICD-10 Code: Z76.5)

The essential feature of malingering is the intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentives such as avoiding military duty, avoiding work, obtaining financial compensation, evading criminal prosecution, or obtaining drugs. Under some circumstances, malingering may represent adaptive behaviour – for example, feigning illness while a captive of the enemy during war-time.

Malingering should be strongly suspected if any combination of the following is noted:

1. Medicolegal context of presentation (e.g., the person is referred by an attorney to the clinician for examination)
2. Marked discrepancy between the person's claimed stress or disability and the objective findings
3. Lack of cooperation during the diagnostic evaluation and in complying with the prescribed treatment regimen
4. The presence of Antisocial Personality Disorder

Differential Diagnosis⁸

In Common with	Characteristics Shared	Exclusively characteristic of Malingering or of the disorder with which it is compared or difference between the two disorders
Factitious Disorder	Similar symptoms	Here there is no external incentive whereas for malingering there is an external incentive; Factitious Disorder has an intrapsychic need to maintain the sick role
Conversion Disorder and other Somatoform Disorders	Similar symptoms	In malingering, symptoms are produced by intention and there is the obvious, external incentive; in contrast to Conversion Disorder, symptom relief is not often obtained by suggestion or hypnosis

3) Adult Antisocial Behaviour

(DSM-IV Code: V71.01 & ICD-10 Code: Z72.8)

This category is to be used when the antisocial behaviour is not due to a mental disorder (e.g., Conduct Disorder, Antisocial Personality Disorder, or an Impulse-Control Disorder). Examples are: the behaviour of some professional thieves, racketeers, or dealers in illegal substances.⁹

4) Child or Adolescent Antisocial Behaviour

(DSM-IV Code: V71.02 & ICD-10 Code: Z72.8)

This category is meant for the antisocial behaviour in a child or adolescent that is not due to a mental disorder (e.g., Conduct Disorder or an Impulse-Control Disorder). Examples are: isolated antisocial acts of children or adolescents (not a pattern of antisocial behaviour).¹⁰

5) Borderline Intellectual Functioning

(DSM-IV Code: V62.89 & ICD-10 Code: R41.8)

This category is to be used with borderline intellectual functioning, that is, an IQ in the 71-84 range. Differential diagnosis between borderline intellectual functioning and mental retardation (an IQ of 70 or below) is especially difficult with the coexistence of certain mental disorders (e.g., Schizophrenia).¹¹

6) Age-Related Cognitive Decline

(DSM-IV Code: 780.9 & ICD-10 Code: R41.8)

This category is meant for an objectively identified decline in cognitive functioning consequent to the aging process that is within normal limits given the person's age. Individuals with this condition may report problems remembering names or appointments or may experience difficulty in solving complex problems. This category should be considered only after it has been determined that the cognitive impairment is not attributable to a specific mental disorder or neurological condition.¹²

7) Bereavement

(DSM-IV Code: V62.82 & ICD-10 Code: Z63.4)

This category is meant for a reaction to the death of a loved one. As part of their reaction to the loss, some grieving individu-

als present with symptoms characteristic of a Major Depressive Episode (e.g., feelings of sadness and associated symptoms such as insomnia, poor appetite, and weight loss). The duration and expression of 'normal' bereavement vary considerably among different cultural groups. The diagnosis of Major Depressive Disorder is generally not given unless the symptoms are still present 2 months after the loss. However, the presence of certain symptoms that are not characteristic of a 'normal' grief reaction may be helpful in differentiating bereavement from a Major Depressive Episode. They are 1. guilt about things other than actions taken or not taken by the survivor at the time of the death; 2. thoughts of death other than the survivor feeling that he/she would be better off dead or should have died with the deceased person; 3. morbid preoccupation with worthlessness; 4. marked psychomotor retardation; 5. prolonged and marked functional impairment; and 6. hallucinatory experiences other than thinking that he/she hears the voice of, or transiently sees the image of, the deceased person.¹³

8) Academic Problem

(DSM-IV Code: V62.3 & ICD-10 Code: Z55.8)

This category should be used for an academic problem that is not due to a mental disorder or, if due to a mental disorder, is sufficiently severe to warrant independent clinical attention. For example, a person has a pattern of failing grades, or of significant underachievement with adequate intellectual capacity in the absence of a Learning or Communication Disorder or any other mental disorder that would account for the problem.¹⁴

9) Occupational Problem

(DSM-IV Code: V62.2 & ICD-10 Code: Z56.7)

This category is for an occupational problem that is not due to a mental disorder or, if it is due to a mental disorder, is sufficiently severe to warrant independent clinical attention. For example, a person has job dissatisfaction and uncertainty about career choices.¹⁵

10) Identity Problem

(DSM-IV Code: 313.82 & ICD-10 Code: F93.8)

This category is meant for uncertainty about multiple issues relating to identity such as long-term goals, career choice,

friendship patterns, sexual orientation and behaviour, moral values, and group loyalties.¹⁶

11) Religious or Spiritual Problem

(DSM-IV Code: V62.89 & ICD-10 Code: Z71.8)

This category is meant for a religious or spiritual problem. For example persons have distressing experiences that involve loss or questioning of faith, problems associated with conversion to a new faith, or questioning of spiritual values that may not necessarily be related to an organized church or religious institution.¹⁷

12) Acculturation Problem

(DSM-IV Code: V62.4 & ICD-10 Code: Z60.3)

This category is for a problem involving adjustment to a different culture (e.g., following migration).¹⁸

13) Phase of Life Problem

(DSM-IV Code: V62.89 & ICD-10 Code: Z60.0)

This category is for a problem associated with a particular developmental phase or some other life circumstance that is not due to a mental disorder, or if it is due to a mental disorder, is sufficiently severe to warrant independent clinical attention. For example, a person has problems associated with entering school, leaving parental control, starting a new career, and changes involved in marriage, divorce, and retirement.¹⁹

8. Conclusion

As the title of the chapter suggests, what we have dealt with in this chapter are conditions that need to be seriously looked into for the assessment of the mental state of the individuals presented. These conditions are somehow related to the mental disorders or problems we have seen in this book.

CONCLUSION

Psychiatry is an interesting and highly useful field taking into account the mental health issues humans are facing nowadays. Mental health issues had ever been there right from the very beginning of humanity. Today social life has become so complicated and fragmented that every individual is affected by some sort of mild mental ailment at one time or other in one's lifetime. Fortunately the stigma attached to mental health issues is disappearing in many countries especially in advanced countries. In developing and in underdeveloped parts of the world the situation is quite different. First of all ignorance is one of the main factors that make people think that mental health issues are due to the effect of divine or devil possession. There seems to be a lot of superstitions around mental illness. For the most part people do not take a person with mental health issues to a psychiatrist but rather the individual is taken to spiritual leaders or local exorcists for treatment. This delays the possibility of individuals getting adequate medication at the initial stage. Therefore what could have been cured in a short while will become an enduring mental illness for the whole lifetime. There needs to be enough awareness programmes in those places where superstitions abound concerning mental illness.

Secondly the stigma attached to mental health issues is debilitating individuals and somehow the stigma prevents them from leading a normal life contributing to society. Though this attitude is changing in some countries but it remains a far cry in most countries. Of course there is some functional inefficiency in the individuals with mental health issues depending upon the severity of the ailment but that need not deter them from contributing their mite to the well being of society and feel respected. Relegating them to the background on account of their mental health issues is not fair and healthy.

In the treatment of mental illness both the pharmacological treatment and psychotherapeutic treatment should be integrated. In most cases both seem to be different streams of service to the

one and the same individual without their ever merging for the welfare of clients. With regard to the pharmacological treatment what I have witnessed in some hospital settings is that because of the inviolability of the individual personhood, taking medication is not insisted upon. Clients take medication only when they are willing. My fear is that this attitude laudable in itself for its respect for human freedom, may mean indifference to the individuals concerned. When one is placed under medical care there is some sort of obligation on the part of the medical practitioner towards the treatment of the client. Essential medications not taken at appropriate time may deteriorate the condition of clients all the more.

Some are of the opinion that prolonged intake of psychiatric medication has its own side effects and clients become still worse as the days go by. I agree that psychiatric medications have side effects but without taking medications clients would be in a worse situation than by taking medication with all its side effects. Here we are speaking of relative health rather than absolute health.

Mental health care awareness programme will go a long way to ameliorate the existing situation and it would work as a preventive of the prevalence of mental health problems. Psychiatry should not only address individuals with mental health issues but also educate the general population of the necessity of preventing those illnesses that are preventable.

Psychiatry is a field in which alternative medicine has not been sufficiently tried. In some countries unscientific alternative medications are provided which are rather expressions of superstitious practices. Scientific alternative medications should be given a try in controlled situation first before it is used extensively among the client population.

Unless one is grossly affected, the normal situation for clients to live is home atmosphere. Otherwise when individuals are hospitalised beyond the required time, they get used to live a 'sick role' and first of all they are not willing to return home and secondly when they return home they find it difficult to integrate with the family members. Wherever it is possible clients should be treated in their home situations through paramedical workers.

The needs of clients vary dramatically from one to another. Identifying the particular needs of clients and addressing them is worthwhile. In mental hospitals the inpatients that were for a very long time expressed different types of needs. Some of them for example needed social interactions outside the hospital setting and some others were expressing their spiritual needs, there were clients who were expressing love needs and thus I have observed different levels of needs of clients. Therefore an appraisal of their needs and adequate addressing them seem essential.

Finally a humane treatment is all that is most needed in treating individuals with mental health issues. Of course it is at times very demanding and exasperating to be patient but in the long run it pays. In a mental hospital when I was making my usual visits one client was particularly very negative to me and was verbally abusive. He identified me with the police personnel and so he used to shout at me. No amount of arguments and reassurance would stop him from doing it. But I realized that being patient with him did really prove beneficial.

This book I intend for counsellors and psychotherapists who need to know various types of mental illness and their cure. My endeavour has been first of all to make the counsellors and the psychotherapists get acquainted with mental illnesses and secondly to indicate what types of psychotherapy one needs to use. What I have provided is only stimulation for further study from various sources and become well equipped. Hope the reading of this book has been useful in your case.

ENDNOTES

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GLOSSARY OF TECHNICAL TERMS

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GLOSSARY OF TECHNICAL TERMS¹

Affect

A pattern of observable behaviours that is the expression of a subjectively experienced feeling state (emotion). In contrast to *mood*, which refers to a more pervasive and sustained emotional *climate*, affect refers to more fluctuating changes in emotional *weather*.

Blunted: Significant reduction in the intensity of emotional expression.

Flat: Absence or near absence of any signs of affective expression.

Inappropriate: Discordance between affective expression and the content of speech or ideation.

Labile: Abnormal variability in affect with repeated, rapid, and abrupt shifts in affective expression.

Restricted or constricted: Mild reduction in the range and intensity of emotional expression.

Agitation (psychomotor agitation)

Excessive motor activity associated with a feeling of inner tension. The activity is usually nonproductive and repetitious and consists of such behaviour as pacing, fidgeting, wringing of the hands, pulling of clothes, and inability to sit still.

Agonist medication

A chemical entity extrinsic to endogenously produced substances that acts on a receptor and is capable of producing the maximal effect that can be produced by stimulating that receptor. A partial agonist is capable only of producing less than the maximal effect even when given in a concentration sufficient to bind with all available receptors.

Agolia

An impoverishment in thinking that is inferred from observing speech and language behaviour. There may be brief and concrete replies to questions and restriction in the amount of spontaneous speech (poverty of speech). Sometimes the speech is adequate in amount but conveys little information because it is overconcrete, overabstract, repetitive, or stereotyped (poverty of content).

Amnesia

Loss of memory. Types of amnesia include

Anterograde: Loss of memory of events that occur after the onset of the etiological condition or agent.

Retrograde: Loss of memory of events that occurred before the onset of the etiological condition or agent.

Antagonist medication

A chemical entity extrinsic to endogenously produced substances that occupies a receptor, produces no physiologic effects, and prevents endogenous and exogenous chemicals from producing an effect on that receptor.

Anxiety

The apprehensive anticipation of future danger of misfortune accompanied by a feeling of dysphoria or somatic symptoms of tension. The focus of anticipated danger may be internal or external.

Aphasia

An impairment in the understanding or transmission of ideas by language in any of its forms - reading, writing, or speaking - that is due to injury or disease of the brain centers involved in language.

Aphonia

An inability to produce speech sounds that require the use of the larynx that is not due to a lesion in the central nervous system.

Ataxia

Partial or complete loss of coordination of voluntary muscular movement.

Attention

The ability to focus in a sustained manner on a particular stimulus or activity. A disturbance in attention may be manifested by easy distractibility or difficulty in finishing tasks or in concentrating on work.

Avolition

An inability to initiate and persist in goal-directed activities. When severe enough to be considered pathological, avolition is pervasive and prevents the person from completing many different types of activities (e.g., work, intellectual pursuits, self-care).

Catalepsy

Waxy flexibility - rigid maintenance of a body position over an extended period of time.

Cataplexy

Episodes of sudden bilateral loss of muscle tone resulting in the individual collapsing, often in association with intense emotions such as laughter, anger, fear, or surprise.

Catatonic behaviour

Marked motor abnormalities including motoric immobility (catalepsy or stupor), certain types of excessive motor activity (apparently purposeless agitation not influenced by external stimuli), extreme negativism (apparent motiveless resistance to instructions or attempts to be moved) or mutism, posturing or stereotyped movements, and echolalia or echopraxia.

Conversion symptom

A loss of, or alteration in, voluntary motor or sensory functioning suggesting a neurological or general medical condition. Psychological factors are judged to be associated with the development of the symptom, and the symptom is not fully explained by a neurological or general medical condition or the direct effects of a substance. The symptom is not intentionally produced or feigned and is not culturally sanctioned.

Defense mechanism

Automatic psychological process that protects the individual against anxiety and from awareness of internal or external stressors or dangers. Defense mechanisms mediate the individual's reaction to emotional conflicts and to external stressors. Some of them are invariably maladaptive and others are either maladaptive or adaptive.

Delusion

A false belief based on incorrect inference about external reality that is firmly sustained despite what almost everyone else believes and despite what constitutes incontrovertible and obvious proof or evidence to the contrary. It is often difficult to distinguish between a delusion and an overvalued idea (in which case the individual has an unreasonable belief or idea but does not hold it as firmly as is the case with a delusion).

Bizarre: a delusion that involves a phenomenon that the person's culture would regard as totally implausible.

Delusional jealousy: the delusion that one's sexual partner is unfaithful.

Erotomaniac: a delusion that another person, usually of higher status, is in love with the individual.

Grandiose: a delusion of inflated worth, power, knowledge, identity, or special relationship to a deity or famous person.

Of being controlled: a delusion in which feelings, impulses, thoughts, or actions are experienced as being under the control of some external force rather than being under one's own control.

Of reference: a delusion whose theme is that events, objects, or other persons in one's immediate environment have a particular and unusual significance. These are usually of a negative or pejorative nature, but also may be grandiose in content. This differs from an *idea of reference*, in which the false belief is not as firmly held nor as fully organized into a true belief.

Persecutory: a delusion in which the central theme is that one (or someone to whom one is close) is being attacked, harassed, cheated, persecuted, or conspired against.

Somatic: a delusion whose main content pertains to the appearance or functioning of one's body.

Thought broadcasting: the delusion that one's thoughts are being broadcast out loud so that they can be perceived by others.

Thought insertion: the delusion that certain of one's thoughts are not one's own, but rather are inserted into one's mind.

Depersonalization

An alteration in the perception or experience of the self so that one feels detached from, and as if one is an outside observer of, one's mental processes or body (e.g., feeling like one is in a dream).

Derailment (loosening of associations)

A pattern of speech in which a person's ideas slip off one track onto another that is completely unrelated or only obliquely related. In moving from one sentence or clause to another, the person shifts the topic idiosyncratically from one frame of reference to another and things may be said in juxtaposition that lack a meaningful relationship.

Derealization

An alteration in the perception or experience of the external world so that it seems strange or unreal (e.g., people may seem unfamiliar or mechanical).

Disorientation

Confusion about the time of day, date, or season (time), where one is (place), or who one is (person).

Dissociation

A disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment. The disturbance may be sudden or gradual, transient or chronic.

Distractibility

The inability to maintain attention, that is, the shifting from one area or topic to another with minimal provocation, or attention being drawn too frequently to unimportant or irrelevant external stimuli.

Dysarthria

Imperfect articulation of speech due to disturbance of muscular control.

Dyskinesia

Distortion of voluntary movements with involuntary muscular activity.

Dyssomnia

Primary disorders of sleep or wakefulness characterized by insomnia or hypersomnia as the major presenting symptom. Dyssomnias are disorders of the amount, quality, or timing of sleep.

Dystonia

Disordered tonicity of muscles.

Echolalia

The pathological, parrotlike and apparently senseless repetition (echoing) of a word or phrase just spoken by another person.

Echopraxia

Repetition by imitation of the movements of another. The action is not a willed or voluntary one and has a semiautomatic and uncontrollable quality.

Flashback

A recurrence of a memory, feeling, or perceptual experience from the past.

Flight of ideas

A nearly continuous flow of accelerated speech with abrupt changes from topic to topic that are usually based on understandable associations, distracting stimuli, or plays on words. When severe, speech may be disorganized and incoherent.

Gender dysphoria

A persistent aversion towards some or all of those physical characteristics or social roles that connote one's own biological sex.

Gender identity

A person's inner conviction of being a male or female.

Gender role

Attitudes, patterns of behaviour, and personality attributes defined by the culture in which the person lives as stereotypically 'masculine' or 'feminine' social roles.

Grandiosity

An inflated appraisal of one's worth, power, knowledge, importance, or identity. When extreme, grandiosity may be of delusional proportions.

Hallucination

A sensory perception that has the compelling sense of reality of a true perception but that occurs without external stimulation of the relevant sensory organ. The term *hallucination* is not ordinarily applied to the false perceptions that occur during dreaming, while falling asleep (hypnagogic), or when awakening (hypnopompic). Transient hallucinatory experiences may occur in people without a mental disorder. Types of hallucinations include

Auditory: involving the perception of sound, most commonly of voices.

Gustatory: involving the perception of taste (usually unpleasant).

Olfactory: involving the perception of odor, such as of burning rubber or decaying fish

Somatic: involving the perception of a physical experience localized within the body (such as a feeling of electricity).

Tactile: involving the perception of being touched or of something being under one's skin. The most common are sensation of electric shocks and *formication* (the sensation of something creeping or crawling on or under the skin).

Visual: involving sight, which may consist of formed images, such as of people, or of unformed images, such as flashes of light.

Hyperacusis. Painful sensitivity to sounds.**Hypersomnia**

Excessive sleepiness, as evidenced by prolonged nocturnal sleep, difficulty maintaining an alert awake state during the day, or undesired daytime sleep episodes.

Ideas of reference

The feeling that casual incidents and external events have a particular and unusual meaning that is specific to the person. This should be distinguished from a *delusion of reference*, in which there is a belief that is held with delusional conviction.

Illusion

A misperception or misinterpretation of a real external stimulus, such as hearing the rustling of leaves as the sound of voices.

Incoherence

Speech or thinking that is essentially incomprehensible to others because words or phrases are joined together without a logical or meaningful connection.

Insomnia

A subjective complaint of difficulty falling or staying asleep or poor sleep quality. Types of insomnia include

Initial insomnia: difficulty in falling asleep.

Middle insomnia: awakening in the middle of the night followed by eventually falling back to sleep, but with difficulty.

Terminal insomnia: awakening before one's usual waking time and being unable to return to sleep.

Intersex condition

A condition in which an individual shows intermingling, in various degrees, of the characteristics of each sex, including physical form, reproductive organs, and sexual behaviour.

Macropsia. The visual perception that objects are larger than they actually are.

Magical thinking

The erroneous belief that one's thoughts, words, or actions will cause or prevent a specific outcome in some way that defies commonly understood laws of cause and effect. Magical thinking may be a part of normal child development.

Micropsia. The visual perception that objects are smaller than they actually are.

Mood

A pervasive and sustained emotion that colours the perception of the world. Common examples of mood include depression, elation, anger, and anxiety. In contrast to affect, which refers to more fluctuating changes in emotional 'weather,' mood refers to a more pervasive and sustained emotional 'climate.'

Dysphoric: an unpleasant mood, such as sadness, anxiety, or irritability.

Elevated: an exaggerated feeling of well-being, or euphoria or elation.

Euthymic: mood in the 'normal' range, which implies the absence of depressed or elevated mood.

Expansive: lack of restraint in expressing one's feelings, frequently with an overvaluation of one's significance or importance.

Irritable: easily annoyed and provoked to anger.

Mood-congruent psychotic features

Delusions or hallucinations whose content is entirely consistent with the typical themes of a depressed or manic mood.

Mood-incongruent psychotic features

Delusions or hallucinations whose content is not consistent with the typical themes of a depressed or manic mood.

Nystagmus

Involuntary rhythmic movements of the eyes that consist of small-amplitude rapid tremors in one direction and a larger, slower, recurrent sweep in the opposite direction. Nystagmus may be horizontal, vertical, or rotary.

Overvalued idea

An unreasonable and sustained belief that is maintained with less than delusional intensity (i.e., the person is able to acknowledge the possibility that the belief may not be true). The belief is not one that is ordinarily accepted by other members of the person's culture or subculture.

Panic attacks

Discrete periods of sudden onset of intense apprehension, fearfulness, or terror, often associated with feelings of impending doom. During these attacks there are symptoms such as shortness of breath or smothering sensations; palpitations, pounding heart, or accelerated heart rate; chest pain or discomfort; choking; and fear of going crazy or losing control.

Unexpected (uncued) – the onset of the attack is not associated with a situational trigger and instead occurs 'out of the blue.'

Situationally bound – the panic attack almost invariably occurs immediately on exposure to, or in anticipation of, a situation trigger ('cue').

Situationally predisposed – the panic attack is more likely to occur on exposure to a situational trigger but is not invariably associated with it.

Paranoid ideation

Ideation, of less than delusional proportions, involving suspiciousness or the belief that one is being harassed, persecuted, or unfairly treated.

Parasomnia

Abnormal behaviour or physiological events occurring during sleep or sleep-wake transitions.

Personality

Enduring patterns of perceiving, relating to, and thinking about the environment and oneself. Personality traits are prominent aspects of personality that are exhibited in a wide range of important social and personal contexts. Only when personality traits are inflexible and maladaptive and cause either significant functional impairment or subjective distress do they constitute a Personality Disorder.

Phobia

A persistent, irrational fear of a specific object, activity, or situation (the phobic stimulus) that results in a compelling desire to avoid it. This often leads either to avoidance of the phobic stimulus or to enduring it with dread.

Pressured speech

Speech that is increased in amount, accelerated, and difficult or impossible to interrupt. Usually it is also loud and emphatic. Frequently the person talks without any social stimulation and may continue to talk even though no one is listening.

Prodrome. An early or premonitory sign or symptom of a disorder.

Psychomotor agitation. see Agitation

Psychomotor retardation. Visible generalized slowing of movements and speech.

Psychotic

This term has historically received a number of different definitions, none of which has achieved universal acceptance. The narrowest definition of psychotic is restricted to delusions or prominent hallucinations, with the hallucinations occurring in the absence of insight into their pathological nature. A slightly less restrictive definition would also include prominent hallucinations that the individual realizes are hallucinatory experiences. Broader still is a definition that also includes other positive symptoms of Schizophrenia (i.e., disorganized speech, grossly disorganized or catatonic behaviour). Unlike these definitions based on symptoms, the definition used in DSM-II and ICD-9 was probably far too inclusive

and focused on the severity of functional impairment, so that a mental disorder was termed psychotic if it resulted in 'impairment that grossly interferes with the capacity to meet ordinary demands of life.' Finally, the term has been defined conceptually as a loss of ego boundaries or a gross impairment in reality testing. Based on their characteristic features, the different disorders in DSM-IV emphasize different aspects of the various definitions of psychotic.

Residual phase

The phase of an illness that occurs after remission of the florid symptoms or the full syndrome.

Sex

A person's biological status as male, female, or uncertain. Depending on the circumstances, this determination may be based on the appearance of the external genitalia or on karyotyping.

Sign

An objective manifestation of a pathological condition. Signs are observed by the examiner rather than reported by the affected individual.

Stereotyped movements

Repetitive, seemingly driven, and nonfunctional motor behaviour (e.g., hand shaking or waving, body rocking, head banging, mouthing of objects, self-biting, picking at skin or body orifices, hitting one's own body).

Stressor, psychosocial

Any life event or life change that may be associated temporally (and perhaps casually) with the onset, occurrence, or exacerbation of a mental disorder.

Stupor. A state of unresponsiveness with immobility and mutism.

Symptom

A subjective manifestation of a pathological condition. Symptoms are reported by the affected individual rather than observed by the examiner.

Syndrome

A grouping of signs and symptoms, based on their frequent co-occurrence, that may suggest a common underlying pathogenesis, course, familial pattern, or treatment selection.

Synesthesia

A condition in which a sensory experience associated with one modality occurs when another modality is stimulated, for example, a sound produces the sensation of a particular colour.

Tic

An involuntary, sudden, rapid, recurrent, nonrhythmic, stereotyped motor movement or vocalization.

Transsexualism

Severe gender dysphoria, coupled with a persistent desire for the physical characteristics and social roles that connote the opposite biological sex.

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