
UNIT 1 A BRIEF HISTORY OF PSYCHOPATHOLOGY

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1.0 INTRODUCTION

Throughout history, human civilisations have held quite different views of the problems that we consider now to be mental disorders. The search for explanations of the causes of abnormal behaviour dates to ancient times, as do conflicting opinions about the aetiology of mental disorders. There have also been a number of approaches to treat these mental disorders or psychopathologies. Ancient beliefs attributed abnormal behaviour to the disfavour of a supernatural power or the mischief of demons. A second stream of beliefs started attributing mental disorders to some physiological dysfunctions and biochemical imbalances in the body. This was only late nineteenth or early twentieth century when psychological explanations of nature, aetiology and treatment of mental disorders began to be conceptualised and getting importance. In this unit we will be dealing with the ancient supernatural beliefs followed by Biological Models where in we discuss early Greek contributions and the 19th century writers and the 20th century concepts. This will be followed by the next section which will consider the psychological approaches which will consider psychoanalytic, humanistic and behavioural approaches.

1.1 OBJECTIVES

After reading this unit, you will be able to:

- Explain supernatural belief regarding causes and treatment of psychopathology;
- Describe the biological approach to psychopathology;
- Explain the psychoanalytic theory of psychopathology;

- Present an account humanistic approach to psychopathology; and
- Understand the relevance of behaviouristic approach in explanation of psychopathology.

1.2 THE ANCIENT SUPERNATURAL BELIEFS

Throughout history, human civilisations have held quite different views of the problems that we consider now to be mental disorders. The search for explanations of the causes of abnormal behaviour dates to ancient times, as do conflicting opinions about the aetiology of mental disorders. There have also been a number of approaches to treat these mental disorders or psychopathologies. Ancient beliefs attributed abnormal behaviour to the disfavour of a supernatural power or the mischief of demons. A second stream of beliefs started attributing mental disorders to some physiological dysfunctions and biochemical imbalances in the body. This was only late nineteenth or early twentieth century when psychological explanations of nature, aetiology and treatment of mental disorders began to be conceptualised and getting importance.

The ancient human civilisations believed that abnormal behaviours are caused by some supernatural magic, evil spirits, demons, moon and the stars. There was a strong belief that our behaviours, affects and thought are governed by the agent situated outside our bodies and environment. These agents included supernatural entities (divinities, demons and spirits), celestial objects (stars and moon) and other phenomena like magnetic fields.

1.2.1 Witchcraft and Demonology

The individuals suffering from mental disorders were supposed to be possessed and controlled by magical, evil spirits and demons. Nature of the spirit was judged by the nature of behaviour exhibited by the affected person. Excessive spiritual behaviours were attributed to holy spirits, while destructive behaviours were thought to be caused by evil spirits. The treatments included punishments like chaining them or keeping them in cages or horrible ritual of boring a hole in the skull. These victims after going through an unfair trial were condemned as witches or demons were burned alive or hanged.

1.2.2 Moon and Stars

The Latin word for moon is Luna, this inspired people to use the word lunatic for abnormal people, but now this word, is not used any more. According to this notion the movements of the full moon and the stars have an effect on behaviour of people. This view is reflected by followers of astrology who think that their behaviour as well as major events in their lives can be predicted by the position of the planets.

1.2.3 Mass Hysteria

It is a phenomenon in which the experience of an emotion seems to spread to those in the surroundings around. If an individual is frightened and sad this feeling and experience spreads to nearby people and soon this feeling further escalates, develops into a panic and the whole community is affected. The Supernatural model is still popular and used in undeveloped cultures where poverty is high and literacy rate is low and mental health professionals are not permitted to play their role. People still look towards magic and rituals performed by holy persons for the solutions of mental disorders.

1.3 BIOLOGICAL MODELS

With the rising interest in biological sciences supernatural explanations were started to be discounted. Biological models attributed mental disorders to physical diseases and biochemical imbalances in the body.

1.3.1 Early Greek Contributions: Hippocrates and Galen

The Greek physician Hippocrates ridiculed demonological accounts of illness and insanity. Instead, Hippocrates hypothesized that abnormal behaviour, like other forms of disease, had natural causes. Health depended on maintaining a natural balance within the body, specifically a balance of four body fluids (which were also known as the four humors): blood, phlegm, black bile, and yellow bile.

Hippocrates argued that various types of disorder or psychopathology resulted from either an excess or a deficiency of one of these four fluids. The Hippocratic perspective dominated medical thought in Western countries until the middle of the nineteenth century. People trained in the Hippocratic tradition viewed “disease” as a unitary concept. In other words, physicians did not distinguish between mental disorders and other types of illness. All problems were considered to be the result of an imbalance of body fluids, and treatment procedures were designed in an attempt to restore the ideal balance.

Galen a Roman physician adopted Hippocratic theory and advocated that the four fluids relate to the Greek environmental concepts such as heat (blood), dryness (black bile), moisture (yellow bile) and cold (phlegm). Each fluid was related to one quality. Excess of one or more fluids were treated by regulating the environment to increase or decrease heat, dryness, moisture and cold depending on the deficiency of the fluid. For example, when King Charles the sixth got sick he was treated according to the following concept of Galen. He was moved to less stressful countryside environment to restore the balance of his body fluids. Rest, good diet and exercise were recommended.

Early biological models of mental disorders used some unique techniques of treatment. One of these was bloodletting, a technique where a measured amount of blood was removed by leeches to minimise aggressive tendencies. Induced vomiting was used to reduce Depression. The diagnosed person was forced to eat tobacco and half boiled cabbage for vomiting.

1.3.2 Nineteenth Century: J.P. Grey and E. Kraepelin

J. P. Grey theorised that mental disorder (insanity) was always due to physical causes and emphasis should be on rest and diet, proper room temperature and ventilation. He even invented the rotary fan and used it at State Hospital in New York. Emil Kraepelin contributed in the area of diagnosis and classification of Psychological Disorders. Each psychological disorder had a different age of onset and time course to follow, along with a different cluster of presenting symptoms. His descriptions of schizophrenia are still useful. He described schizophrenia as a psychotic disorder having 11 subtypes where reality contact was severely lost with delusions (false beliefs) and hallucinations.

1.3.3 Twentieth Century: Insulin Shock Therapy and Electroconvulsive Therapy

In 1927 Manfred Sakel, a Viennese physician, began using higher and higher dosages

of Insulin, the patients had convulsions and went into a state of coma but surprisingly these patients recovered so physicians started to use it frequently. The method was abandoned because it was dangerous, caused coma and even death. Joseph Meduna, in 1920 observed that Schizophrenia was rarely found in epileptics (which later did not prove to be true) and his followers concluded that induced brain seizures might cure Schizophrenia. Electroconvulsive Therapy (ECT) was used extensively and frequently by doctors but was a controversial method some doctors even used it to penalise the difficult unmanageable patients. It is effective with suicidal patients.

Self Assessment Questions

- 1) Explain the early supernatural approach of understanding psychopathology.
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- 2) Describe the early Greek contributions in development of biological models of psychopathology.
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- 3) Explain the contribution of J.P. Grey and E. Kraepelin in development of psychopathology.
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- 4) Give an account of insulin shock therapy and electroconvulsive therapy.
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1.4 PSYCHOLOGICAL APPROACHES

Psychological viewpoints stressed that there were so many emotional problems that could not be attributed to any organic disorder. These approaches emphasise on psychological, interpersonal, social and cultural factors in explanation and treatment of abnormality.

1.4.1 Early Psychological Approaches

Psychological approaches began with the moral and mental hygiene movement which advocated humane and responsible care of the institutionalised patients and encouraged and reinforced social interaction with them. Mental hygiene movement started with the concept of moral therapy. Pioneers in the mental reforms were P. Pinel (1745-1826), William Tuke (1732-1822), Benjamin Rush (1745-1813) and Dorothea Dix (1802-1887). All these individuals were the pioneers in the mental hygiene movement which led to asylum reforms in Europe and America.

In Europe during the Middle Ages mentally ill and mentally retarded, commonly called as the “lunatics” and “idiots”, aroused little interest and were given marginal care. Disturbed behaviour was considered to be the responsibility of the family rather than the community or the state. In the 1600s and 1700s, “insane asylums” were established. Early asylums were little more than human warehouses, but as the nineteenth century began, the moral treatment movement led to improved conditions in at least some mental hospitals. Founded on a basic respect for human dignity and the belief that humanistic care would help to relieve mental illness, moral treatment reform efforts were instituted by leading mental health professionals of the time.

In the middle of the 1800s, Dorothea Dix argued that treating the mentally ill in hospitals was to be more humane and more economical than caring for them haphazardly in their communities. She urged that special facilities be provided to house mental patients. The creation of large institutions for the treatment of mental patients led to the development of a new profession of psychiatry.

By the middle of the 1800s, superintendents of asylums for the insane were almost always physicians who were experienced in taking care of people with severe mental disorders. The Association of Medical Superintendents of American Institutions for the Insane (AMSII), which later became the American Psychiatric Association (APA), in 1844. In 1833, the state of Massachusetts opened a public supported asylum for the people with mental disorders, in Worcester. Samuel Woodward, the asylum's first superintendent, also became the first president of the AMSII. Woodward claimed that mental disorders could be cured just like other types of illnesses. Treatment at the Worcester Lunatic Hospital included a blend of physical and moral procedures.

1.4.2 Psychoanalytic Approach

Psychoanalysis was pioneered by Sigmund Freud (1856-1939). He learned the art of hypnosis from France. He experimented with somewhat different procedures of hypnosis. He used hypnosis in an innovative way. He encouraged his patients to talk freely about their problems, conflicts and fears. He discovered the unconscious mind and its influence in psychopathology by using the techniques of free association, dream analysis and Freudian slips. Freud emphasised on internal mental processes and childhood experiences. The core elements of this approach include:

- a) Analysis of Mental Structures
- b) Levels of Consciousness
- c) Stages of Psychosexual Development
- d) Anxiety and Defense Mechanisms
- e) Psychoanalytic Therapy

a) **Analysis of Mental Structures:** The human psyche consists of the *id*, the *ego* and the *super ego*, the thoughts attitudes and behaviours of three are in state of conflict called intra-psychic conflict. The Id is the unorganised reservoir of wishes or passions related to our sexual and aggressive drives. It strives for immediate gratification that bypasses demands of reality, order, logic and reason. The Id is like a child when it wants something it wants it there and then without regard for consequences, so Id operates on pleasure principle. The energy within the Id is labelled as the libido. The Id has its own characteristic way of processing information, cognitive style referred as primary process. The thinking patterns of Id are illogical, irrational, emotional immature and purely selfish.

Selfish and dangerous drives of the Id do not go unchecked and the Ego ensures that we must find ways to meet our basic needs without offending everyone around us. The Ego operates according to the reality principle and the cognitive operations of the ego are characterised by logic, reason and are referred as the secondary process. The ego tries to resolve conflicts between the demands of the Id within the permitted boundaries of super ego.

The Ego has the role to mediate conflict between the Id and the Super ego according to realities of the world. If it mediates successfully we see an individual who is well adjusted while if the Ego is unsuccessful either the Id or the Super ego becomes strong.

If the Super ego is strong we see a pure, rigid, nonflexible individual. Super ego is the storehouse of moral and ethical standards taught by parents, teachers and culture. It also refers to the conscience of the psyche. It operates according to the moral principle. When we do something wrong and ethical and moral standards are violated the Super ego generates guilt.

b) **Levels of Consciousness:** Freud describes three different layers of consciousness: conscious, preconscious/sub conscious and unconscious. According to Freud that part of the mind about which we are aware is consciousness. It is place where the Ego resides but it is a small part of mental life. The preconscious comprises of thoughts or activities that are easily made conscious by an effort to remember. The largest segment is the unconscious, which comprise the Id, is not easily reachable, yet it gives rise on to important needs and influences our behaviour. The Super ego resides at all the three levels of consciousness. Along with the mental structure, levels of consciousness describe the Freudian topographical structure of personality.

c) **Stages of Psychosexual Development:** Freud theorised that during childhood we pass through a number of psycho sexual stages of development. Each stage of development represent a specific period of development where our basic needs arise and an under or over gratification of the needs at any stage leaves a strong impression on the individual in form of a fixation or psychopathology reflected throughout the adult life. In each of these stages energy of sexual instinct, *libido*, is situated in different parts of the body.

Oral Stage (Birth to 2 years): In the oral stage the major source of pleasure is the mouth where the infant sucks, bites, through mouth, any fixation at this stage appears in form of nail biting , chewing pencils, paper etc. smoking cigarettes.

Anal Stage (2 to 3 years): In the anal stage, which extends from two to three years, toilet training begins. Any conflict or fixation at this stage appears in form of a person who is very neat, clean and strict in following rules/norms.

Phallic Stage (3 to 5 years): Phallic stage begins at three years and goes up to five years. In this stage boys have oedipal complex, a wish to have sexual attachment with their mothers, while girls shift away from mother and get closer to father, an experience labelled as Electra complex.

Latency (5 to 12 years): In this stage sex drives are subsided and child is mainly engaged in acquiring social, academic and professional skills.

Genital 12 years and onwards): Latency stage is where interest in sexual drive is less but it is the genital stage where interest in and tendency to impress opposite sex develops. One is more preoccupied to make a good impression on the members of opposite sex through one's looks, dress and conversation. Often you see a young growing up standing in front of the mirror and either trying to focus how to look even better etc. Each stage of development is important for a healthy adjustment and fixation at any stage may result in formation of psychopathology or an immediate behaviour.

d) **Anxiety and Defense Mechanisms**: Freud noted that a major drive for most people is the reduction in tension, and that a major cause of tension was anxiety. He identified three different types of anxiety.

Reality Anxiety: This is the most basic form of anxiety and is typically based on fears of real and possible events, such as being bitten by a dog or falling from a ladder. The most common way of reducing tension from Reality Anxiety is taking oneself away from the situation, running away from the dog or simply refusing to go up the ladder.

Neurotic Anxiety: This is a form of anxiety which comes from an unconscious fear that the basic impulses of the Id (the primitive part of our personality) will take control of the person, leading to eventual punishment (this is thus a form of Moral Anxiety).

Moral Anxiety: This form of anxiety comes from a fear of violating values and moral codes, and appears as feelings of guilt or shame.

The ego is always threatened by the possibility of expression of irrational and antisocial sexual and aggressive drives of the id. Thus, the ego fights a battle to stay on top of id and super ego. The conflicts between id and super ego produce anxiety that is a threat to ego. The threat or anxiety experienced by ego is a signal that alerts the ego to use unconscious protective processes that keep primitive emotions associated with conflicts in check. These protective processes are defense mechanisms or coping styles.

All defense mechanisms share two common properties: They often appear unconsciously and they tend to distort, transform, or otherwise falsify reality. In distorting reality, there is a change in perception which allows for a lessening of anxiety, with a corresponding reduction in felt tension. Freud's list of basic defense mechanisms includes:

- Denial: claiming/believing that what is true to be actually false.
- Displacement: redirecting emotions to a substitute target.
- Intellectualisation: taking an objective viewpoint.
- Projection: attributing uncomfortable feelings to others.

- Rationalisation: creating false but credible justifications.
- Reaction Formation: overacting in the opposite way to the fear.
- Regression: going back to acting as a child.
- Repression: pushing uncomfortable thoughts into the subconscious.
- Sublimation: redirecting ‘wrong’ urges into socially acceptable actions.

e) **Psychoanalytic Therapy:** Psychoanalytic therapy involves reliving repressed fantasies and fears both in feeling and in thought. This process involves transference, i.e. a projection of the attitudes and emotions, originally directed towards the parents, onto the analyst. This is necessary for successful treatment. Access to these repressed fears is gained often through dream interpretation, where the manifest content in dreams is understood as a symbolic expression of the hidden or latent content. (Internal censorship demands that the wish be transformed, leading to a disguised or symbolic representation.) The sources of dream content results from lost memories, linguistic symbols and repressed experiences.

Dreams are “guardians of sleep”, i.e. wish fulfilments that arise in response to inner conflicts and tensions whose function is to allow the subject to continue sleeping. Dream –Work is the production of dreams during sleep- the translation of demands arising from the unconscious into symbolic objects of the preconscious and eventually the conscious mind of the subject. Dream Interpretation is the decoding of the symbols (manifest content) and the recovery of their latent content, i.e. the unconscious and, hence, hidden tensions and conflicts that give rise to the dreams in the first place.

Evaluation: Some of the criticisms typically raised against the Freudian theory are:

- 1) Freud’s hypotheses are neither verifiable nor falsifiable. It is not clear what would count as evidence sufficient to confirm or refute theoretical claims.
- 2) The theory is based on an inadequate conceptualisation of the experience of women.
- 3) The theory overemphasises the role of sexuality in human psychological development and experience.

Self Assessment Questions

- 1) Explain the early psychological approaches of understanding psychopathology.

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- 2) Describe the Freudian topographical structure of personality.

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3) Explain the importance of stages of psychosexual development in understanding psychopathology.

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4) Give an account of the concepts of anxiety and defense mechanisms as explained by Freud.

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5) Elucidate the process of psychoanalytic therapy.

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1.4.3 Humanistic Approach

Humanistic view puts emphasis on the positive aspects of life, free choices and personal growth experiences. According to this approach abnormality results from refusal to accept personal responsibility for one's own actions and thoughts. So human behaviour is caused by the choices we make voluntarily. The humanistic theorists assume that human nature is inherently good and abnormal/aggressive behaviour is caused by the society but not by the individual.

Carl Rogers, along with Abraham Maslow, rejected the deterministic nature of both psychoanalysis and behaviourism and maintained that we behave as we do because of the way we perceive our situation. As no one else can know how we perceive, we are the best experts on ourselves. Like Freud, Rogers developed his theory based on his work with emotionally troubled people but unlike Freud, Rogers claimed that we have a remarkable capacity for self healing and personal growth leading towards self-actualisation. Freud emphasised the importance of psychological continuity and hence believed our past to be a strong determinant of the present, whereas Rogers placed emphasis on the person's current perception and how we live in the here-and-now.

i) **Self and Congruence:** Central to Rogers' theory is the notion of self or self-concept. This is defined as "the organised, consistent set of perceptions and beliefs about oneself". It consists of all the ideas and values that characterise 'I' and 'me' and includes perception and valuing of 'what I am' and 'what I can do'. Consequently, the self-concept is a central component of our total experience and influences both our perception of the world and perception of oneself. For instance, a woman who

perceives herself as strong may well behave with confidence and come to see her actions as actions performed by someone who is confident.

The self-concept does not necessarily always fit with reality, and the way we see ourselves may differ greatly from how others see us. According to Rogers, we want to feel, experience and behave in ways which are consistent with our self-image and which reflect what we would like to be like, our ideal-self. The closer our self-image and ideal-self are to each other, the more consistent or congruent we are and the higher our sense of self-worth. A person is said to be in a state of incongruence if some of the experience are unacceptable and are denied or distorted in the self-image. As we prefer to see ourselves in ways that are consistent with our self-image, we may use defence mechanisms like denial or repression in order to feel less threatened by some of what we consider to be our undesirable feelings. A person whose self-concept is incongruent with their real feelings and experiences will defend themselves because the truth hurts. For example, a person on occasion may feel possessive but not want to see themselves as possessive. They will therefore push it out of their awareness, leaving them with a self-image of a generous person, not at all possessive.

The total experiencing individual including all feelings and experiences, denied or accepted is called the organismic self by Rogers. The greater the gap between the organismic self and the self-concept, the greater the chance of confusion and maladjustment. The self-concept of the congruent person, however, reflects the inevitability of change that occurs in the environment and is therefore, flexible. Similarly, as stated above, the closer the ideal-self is to the self-image (i.e. the closer the person you would like to be is to how you see yourself), the more fulfilled and happier the person you will be. So, we can see that two kinds of incongruence can develop: incongruence between self-concept and organismic self and incongruence between ideal-self and self-image.

ii) **Person Centered Therapy:** In order to enhance congruence and move towards self-actualisation the person needs to be self-accepting and to replace the conditions of worth with truer, organismic values. This is established according to Rogers by having at least one relationship in which the person experiences unconditional positive regard, where the person is totally accepted and supported regardless of what they do, think or feel. The relationship obviously must be controlled or directed not by the other person in the relationship but by oneself. The person him/herself is at the centre, hence the term 'person-centred'.

Any relationship which reduces incongruence is a therapeutic relationship according to Rogers. Such a relationship is characterised by one person experiencing another person who communicates: (a) unconditional positive regard, (b) empathy (i.e. accepting that another person experiences the world in an entirely different manner from yourself and reflecting back what this is like) (c) genuineness (i.e. being oneself rather than playing a role, of say, therapist, friend, parent or teacher)

If a person demonstrates these three qualities consistently in a relationship, they are offering a therapeutic context to the other person. If a person feels these three qualities in a relationship, they are said to be in a therapeutic, healing or growing relationship.

Evaluation: Some of the criticisms raised against the humanistic approach are:

- 1) This approach criticized behaviourism for not acknowledging mental events, though the humanistic theorists overlooked scientific methods of studies.

- 2) Wishful thinking of man is not supported by scientific investigation and facts.
- 3) Humanistic approach used the terms like intuition and reasoning, which were philosophy and could not be tested.
- 4) This approach rejected animal research in psychology.
- 5) Concepts of this approach are sometimes not amenable to clear definition and verification.

1.4.4 Behavioural Approach

The behavioural perspective is identified with the Russian physiologist Ivan Pavlov (1849–1936), the discoverer of the conditioned reflex, and the American psychologist John B. Watson (1878–1958), the father of behaviourism. The behavioural perspective focuses on the role of learning in explaining both normal and abnormal behaviour. From a learning perspective, abnormal behaviour represents the acquisition, or learning, of inappropriate, maladaptive behaviours. From the learning perspective the abnormal behaviour itself is the problem. In this perspective, abnormal behaviour is learned in much the same way as normal behaviour. Why do some people behave abnormally? It may be that their learning histories differ from other people's. For example, a person who was harshly punished as a child for masturbating might become anxious, as an adult, about sexuality.

Poor child-rearing practices, such as capricious punishment for misconduct and failure to praise or reward good behaviour, might lead to antisocial behaviour. Children with abusive or neglectful parents might learn to pay more attention to inner fantasies than to the world outside and have difficulty distinguishing reality from fantasy.

Watson and other behaviourists, such as Harvard University psychologist B. F. Skinner (1904–1990), believed that human behaviour is the product of our genetic inheritance and environmental or situational influences. Like Freud, Watson and Skinner discarded concepts of personal freedom, choice, and self-direction. But whereas Freud saw us as driven by irrational forces, behaviourists see us as products of environmental influences that shape and manipulate our behaviour. Behaviourists also believed that we should limit the study of psychology to behaviour itself rather than focus on underlying motivations. Therapy, in this view, consists of shaping behaviour rather than seeking insight into the workings of the mind. Behaviourists focus on the roles of two forms of learning in shaping both normal and abnormal behaviour, classical conditioning and operant conditioning.

Role of Classical Conditioning: The Russian physiologist Ivan Pavlov discovered the conditioned reflex (now called a *conditioned response*) quite by accident. In his laboratory, he harnessed dogs to an apparatus to study their salivary response to food. Along the way he observed that the animals would salivate and secrete gastric juices even before they started to eat. These responses appeared to be elicited by the sound of the food cart as it was wheeled into the room.

So Pavlov undertook an experiment that showed that animals could learn to salivate in response to other stimuli, such as the sound of a bell, if these stimuli were *associated* with feeding. Because dogs don't normally salivate to the sound of bells, Pavlov reasoned that they had acquired this response. He called it a **conditioned response** (CR), or conditioned reflex, because it had been paired with what he called an **unconditioned stimulus** (US)—in this case, food—which naturally elicited salivation. The salivation to food, an unlearned response, Pavlov called the

unconditioned response (UR), and the bell, a previously neutral stimulus; he called the **conditioned stimulus** (CS).

Phobias or excessive fears may be acquired by classical conditioning. For instance, a person may develop a phobia for riding on elevators following a traumatic experience on an elevator. In this example, a previously neutral stimulus (elevator) becomes paired or associated with an aversive stimulus (trauma), which leads to the conditioned response (phobia).

Watson himself had demonstrated how a fear response could be acquired through classical conditioning. Together with his research assistant who was later to become his wife, Rosalie Rayner, Watson classically conditioned an 11-month-old boy, who is well known in the annals of psychology as “Little Albert,” to develop a fear response to a white rat (Watson & Rayner, 1920). Prior to conditioning, the boy showed no fear of the rat and had actually reached out to stroke it. Then, as the boy reached for the animal, Watson banged a steel bar with a hammer just behind the boy’s head, creating a loud, aversive sound. After repeated pairings of the jarring sound and the presence of the animal, Albert sure enough showed a conditioned response, displaying fear to the rat alone. From the learning perspective, normal behaviour involves responding adaptively to stimuli, including conditioned stimuli. After all, if we do not learn to be afraid of putting our hand too close to a hot stove after one or two experiences of being burned or nearly burned, we might repeatedly suffer unnecessary burns. On the other hand, acquiring inappropriate and maladaptive fears on the basis of conditioning may cripple our efforts to function in the world.

Role of Operant Conditioning: Classical conditioning can explain the development of simple, reflexive responses, such as salivating to cues associated with food, as well as the emotional response of fear to stimuli that have been paired with painful or aversive stimuli. But classical conditioning does not account for more complex behaviours, such as studying, working, socialising, or preparing meals. The behavioural psychologist B. F. Skinner (1938) called these types of complex behaviours operant responses because they operate on the environment to produce effects or consequences. In operant conditioning, responses are acquired and strengthened by their consequences.

We acquire responses or skills, such as raising our hand in class that lead to reinforcement. Reinforcers are changes in the environment (stimuli) that increase the frequency of the preceding behaviour. Behaviours that lead to rewarding consequences are strengthened—that is, they are more likely to occur again. Over time, such behaviours become habits (Staddon & Cerutti, 2003). For example, you likely acquired the habit of raising your hand in class on the basis of experiences early in grade school when your teachers responded to you only if you first raised your hand.

Skinner identified two types of reinforcers. Positive reinforcers, which are commonly called rewards, boost the frequency of behaviour when they are introduced or presented. Most of Skinner’s work focused on studying operant conditioning in animals, such as pigeons. If a pigeon gets food when it pecks a button, it will continue to peck a button until it has eaten its fill. If we get a friendly response from people when we hold the door open for them, we’re more likely to develop the habit of opening the door for others.

Negative reinforcers increase the frequency of behaviour when they are removed. If picking up a crying child stops the crying, the behaviour (picking up the child) is negatively reinforced (made stronger) by the removal of the negative reinforce (the crying, an aversive stimulus).

Adaptive, normal behaviour involves learning responses or skills that lead to reinforcement. We learn behaviours that allow us to obtain positive reinforcers or rewards, such as food, money, and approval, and that help us remove or avoid negative reinforcers, such as pain and disapproval. But if our early learning environments do not provide opportunities for learning new skills, we might be hampered in our efforts to develop the skills needed to obtain reinforcement. A lack of social skills, for example, may reduce our opportunities for social reinforcement (approval or praise from others), which may lead in turn to depression and social isolation.

Punishment can be considered the flip side of reinforcement. Punishments are aversive stimuli that decrease the frequency of the behaviour they follow. Punishment may take many forms, including physical punishment, removal of a reinforcing stimulus, assessment of monetary penalties, taking away privileges, or removal from a reinforcing environment.

Social-Cognitive Theory: Social-cognitive theory represents the contributions of theorists such as Albert Bandura, Julian B. Rotter, and Walter Mischel. Social-cognitive theorists expanded traditional learning theory by including roles for thinking, or cognition, and learning by observation, which is also called modelling (Bandura, 2004). A phobia for spiders, for example, may be learned by observing the fearful reactions of others in real life, on television, or in the movies.

Social-cognitive theorists believe that people have an impact on their environment, just as their environment has an impact on them (Bandura, 2001, 2004). Social-cognitive theorists agree with traditional behaviourists like Watson and Skinner that theories of human nature should be tied to observable behaviour. However, they argue that factors within the person, such as expectancies and the values placed on particular goals, also need to be considered in explaining human behaviour. For example, people who hold more positive expectancies about the effects of a drug are more likely to use the drug and to use larger quantities of the drug than are people with less positive expectancies.

Behaviour Modification: Processes and techniques used for treatment of maladaptive behaviours based on different theories of behaviouristic approach are called behaviour modification. Conditions suitable for behaviour therapy are phobic disorders, obsessive compulsive disorders, generalised anxiety disorder, panic disorders, habit disorders, sexual deviations/dysfunctions, social skills deficits and enuresis. Major techniques used under behaviour modification are relaxation therapy, systematic desensitisation, biofeedback, aversion therapy, habit reversal, modelling, shaping, token economy and cognitive behaviour therapy.

Evaluation: Learning perspectives have spawned a model of therapy, called behaviour therapy (also called behaviour modification), that involves systematically applying learning principles to help people change their behaviour. Behaviour therapy techniques have helped people overcome a wide range of psychological problems, including phobias and other anxiety disorders, sexual dysfunctions, and depression. Moreover, reinforcement based programs are now widely used in helping parents learn better parenting skills and helping children learn in the classroom. Some of the criticisms raised against the behaviouristic theories are:

- 1) Behaviourism alone cannot explain the richness of human behaviour and that human experience cannot be reduced to observable responses.
- 2) Many learning theorists too, especially social-cognitive theorists, have been dissatisfied with the strict behaviouristic view that environmental influences (rewards and punishments) mechanically control our behaviour.

- 3) Humans experience thoughts and dreams and formulate goals and aspirations. Behaviourism does not seem to address much of what it means to be human.
- 4) Social-cognitive theorists have broadened the scope of traditional behaviourism, but critics claim that social-cognitive theory places too little emphasis on genetic contributions to behaviour and doesn't provide a full enough account of subjective experience, such as self-awareness and the flow of consciousness.

Self Assessment Questions

- 1) Explain the basic assumptions of humanistic approaches to psychopathology.

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- 2) Describe the role of self-concept and congruence in development of unhealthy personality as explained by Carl Rogers.

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- 3) Explain the assumptions of learning theories regarding maladaptive behaviour.

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- 4) Present an account of the theory of classical conditioning in explaining acquired fears and anxiety.

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- 5) Elucidate that how the theory of operant conditioning explains abnormal behaviours.

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- 6) Describe the importance of cognitive behaviour theories in explaining abnormal behaviours.

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1.5 LET US SUM UP

The ancient human civilisations believed that abnormal behaviours are caused by some supernatural magic, evil spirits, demons, moon and the stars. There was a strong belief that our behaviours, affects and thought are governed by the agent situated outside our bodies and environment. These agents included supernatural entities (divinities, demons and spirits), celestial objects (stars and moon) and other phenomena like magnetic fields. With the rising interest in biological sciences supernatural explanations were started to be discounted. Biological models attributed mental disorders to physical diseases and biochemical imbalances in the body.

Psychological approaches began with the moral and mental hygiene movement which advocated humane and responsible care of the institutionalised patients and encouraged and reinforced social interaction with them. Mental hygiene movement started with the concept of moral therapy. Psychodynamic perspectives reflect the views of Freud, who believed that abnormal behaviour stemmed from psychological causes based on underlying psychic forces within the personality. Humanistic theorists believe it is important to understand the obstacles that people encounter as they strive toward self-actualisation and authenticity. Learning theorists posit that the principles of learning can be used to explain both abnormal and normal behaviour. Cognitive theorists focus on the role of distorted and self-defeating thinking in explaining abnormal behaviour.

1.6 UNIT END QUESTIONS

- 1) Explain the early supernatural approach of understanding psychopathology.
- 2) Describe the contributions of biological models in the historical development of psychopathology.
- 3) Explain the early psychological approaches of understanding psychopathology.
- 4) Present an account of Freudian psychoanalytical theory in research and practice in psychopathology.
- 5) Critically evaluate humanistic approach to psychopathology. Also enumerate the points of difference with psychoanalysis and learning theories.
- 6) Explain the behaviouristic approach to psychopathology.

1.7 GLOSSARY

Demonology : An ancient belief that the individuals suffering from mental disorders were be possessed and controlled by magical, evil spirits and demons.

Mass Hysteria

- : A phenomenon in which the experience of an emotion seems to spread to those in the surroundings around.

Biological Models

- : A model that attribute mental disorders to physical diseases and biochemical imbalances in the body.

The Id

- : The part of personality which is the unorganised reservoir of wishes or passions related to our sexual and aggressive drives striving for their immediate gratification.

The Ego

- : The part of personality which operates according to the reality principle characterised by logic, reason.

Neurotic Anxiety

- : This is a form of anxiety which comes from an unconscious fear that the basic impulses of the Id will take control of the person, leading to eventual punishment.

Defense Mechanisms

- : Defense mechanisms are unconscious protective processes employed by the Ego that keep primitive emotions associated with conflicts in check and protect from threat or anxiety experienced by ego.

Self-Concept

- : Self-concept is defined as the organised, consistent set of perceptions and beliefs about oneself.

Classical Conditioning

- : When a neutral stimulus (conditioned stimulus, CS) is paired with a natural stimulus (unconditioned stimulus, UCS), neutral stimulus alone acquires the ability to elicit the response (conditioned response, CR) which naturally occurs (unconditioned response, UCR) after natural stimulus.

Positive Reinforcers

- : Commonly called as rewards, positive reinforcers increase the likelihood of behaviour when they are introduced or presented.

Negative Reinforcers

- : Negative reinforcers increase the likelihood of behaviour when they are removed.

Punishment

- : Punishments are aversive stimuli that decrease the likelihood of the behaviour they follow.

Social Cognitive Theory

- : A learning-based theory that emphasises observational learning and incorporates roles for cognitive variables in determining behaviour.

1.8 SUGGESTED READINGS

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UNIT 2 CLASSIFICATION OF PSYCHOPATHOLOGY: DSM IV TR

Structure

- 2.0 Introduction
- 2.1 Objectives
- 2.2 Meaning and Purpose of Classification of Psychopathology
 - 2.2.1 Approaches to the Classification of Psychopathology
- 2.3 History of Classification of Psychopathology
 - 2.3.1 Development of ICD
 - 2.3.2 Classification of Mental Disorders in ICD-10
- 2.4 Diagnostic and Statistical Manual of Mental Disorders (DSM)
 - 2.4.1 A Brief History of DSM
 - 2.4.2 Revisions of DSM
- 2.5 DSM-IV (TR): The Current Version of DSM
 - 2.5.1 Multi-Axial Classifications
- 2.6 Evaluation of DSM-IV (TR)
- 2.7 Let Us Sum Up
- 2.8 Unit End Questions
- 2.9 Glossary
- 2.10 Suggested Readings

2.0 INTRODUCTION

Classification is the core of science. Therefore, classification systems are developed with which we could define or classify behaviour. Abnormal psychology is based on the assumption that behaviour is part of one category or disorder and not of another one. A thorough account of classification of mental disorders will be presented in this unit. First of all, we will discuss meaning, purposes and approaches of classification of mental disorders. This will be followed by a description of history of classification of mental disorders. We will then discuss widely used DSM-IV (TR), the current version of DSM. Finally, DSM-IV (TR) will be evaluated.

2.1 OBJECTIVES

After reading this unit, you will be able to:

- Explain meaning, purpose and approaches of classification of mental disorders;
- Present an account of history of classification of mental disorders;
- Explain ICD-10 for the classification of mental disorders;
- Understand the development of DSM as a system of classification of mental disorders;

- Present an account of DSM-IV (TR); and
- Evaluate DSM-IV (TR).

2.2 MEANING AND PURPOSE OF CLASSIFICATION OF PSYCHOPATHOLOGY

In order to classify the psychological disorders we need a classification system. The term classification refers to process to construct categories and to assign people to these categories on the basis of their attributes. Classification in scientific context refers to taxonomy. It also refers to nomenclature, which describes the names and labels that may make up a particular disorder such as schizophrenia or depression. Classification is at the heart of every science. If we cannot label and order objects or experiences or behaviours scientists could not communicate with one another and our knowledge will not advance.

Without labelling and organising patterns of abnormal behaviour, researchers could not communicate their findings to one another, and progress toward understanding and decision about these disorders would come to a halt. Certain psychological disorders respond better to one therapy than another or to one drug than another. Classification also helps clinicians predict behaviour. Finally, classification helps researchers identify populations with similar patterns of abnormal behaviour. By classifying groups of people as depressed, for example, researchers might be able to identify common factors that help explain the origins of depression. Classification of psychopathology fulfils following five primary purposes:

- 1) Communication
- 2) Control
- 3) Comprehension
- 4) Distinction
- 5) Prognosis/prediction

2.2.1 Approaches to the Classification of Psychopathology

Psychologists use three approaches or strategies to classify disorders:

- Categorical approach:** It was Kraepelin, the first psychiatrist to classify psychological disorders from a biological or medical point of view. For Kraepelin in term of physical disorders, we have one set of causative factors which do not overlap with other disorders. We have one defining criteria, which everybody in the category or in the group should meet, e. g. Schizophrenia. After a category has been defined, an object is either a member of the category or it is not. A categorical approach to classification assumes that distinctions among members of different categories are qualitative. In other words, the differences reflect a difference in kind (quality) rather than a difference in amount (quantity).
- Dimensional approach:** A second strategy is a dimensional approach, in which we note the variety of cognitions, moods and behaviours with which the patient presents and quantify them on a scale. For example, on a scale of 1 to 10, a patient might be rated as severely anxious (10), moderately depressed (5), and mildly manic (2) to create a profile of emotional functioning (10, 5, 2). Although dimensional approaches have been applied to psychopathology, they are relatively

unsatisfactory. Dimensional approach to classification describes the objects of classification in terms of continuous dimensions. Rather than assuming that an object either has or does not have a particular property, it may be useful to focus on a specific characteristic and determine how much of that characteristic the object exhibits.

- iii) **Prototypical approach:** A third approach, for organising and classifying behavioural disorders which is an alternative to the first two. It is called a prototypical approach. It identifies some essential characteristics of a disorder and it also allows for certain non-essential variations that do not necessarily change the classification. With this approach classifying the disorder by different possible features or properties any candidate must meet (but not all) of them to fall in that category. In depression, there are five important symptoms such as: depressed mood all the day, weight loss, insomnia, fatigue and feeling of worthlessness. For a person might have three or four of the characteristics of the depression but not all five of them. Yet we still diagnose the person as depressed.

2.3 HISTORY OF CLASSIFICATION OF PSYCHOPATHOLOGY

The most ancient classification of psychopathology was of senile deterioration, melancholia and hysteria. The oldest systematic classification finds its mention in the Ayurveda, an Indian body of thought. The Greek philosopher Hippocrates (460–370 B.C.) classified mental illness into delirium, mania, paranoia, hysteria, melancholia resulting from 4 basic temperaments. Philippe Pinel's (1745–1826) father of modern psychiatry, classification system was based on functional disorders of nervous system. He described four functional disorders: dementia, mania, melancholia and idiotism. Karl Ludwig Kahlbaum (1828-1899) distinguished organic and non organic mental disorders. Emil Kraepelin's (1856- 1926) classification system was based on clinical features of disorders: cause, course and outcomes. His primary classifications were manic depressive psychosis and dementia praecox. Eugen Bleuler combined Kraepelin and Meyerian approaches and classified mental disorders on the basis of psychopathological processes.

2.3.1 Development of ICD

In 1893 1st international list of causes of death was published. This stimulated worldwide organised effort for classification of diseases which resulted in the publication of International Statistical Classification of Diseases and Related Health Problems-1 (ICD-1) by the World Health Organisation in 1900. However, it was only ICD-6 which was published with a separate section on mental disorder in 1949. ICD-8 was published in 1972 with a comprehensive glossary of mental disorders. ICD-9 was published in 1977 with greater clinical modification. Vol. 1 and 2 of ICD-9 described diagnostic codes, while vol. 3 explained procedure codes for the Mental and Behavioural Disorders.

ICD-10: In 1978, WHO entered into a long-term collaborative project with the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) in the USA, aiming to facilitate further improvements in the classification and diagnosis of mental disorders, and alcohol and drug related problems. A series of workshops brought together researchers and practitioners from a number of different psychiatric traditions and cultures, reviewed knowledge in specified areas, and developed recommendations

for future research. A major international conference on classification and diagnosis was held in Copenhagen, Denmark, in 1982 to review the recommendations that emerged from these workshops and to outline a research agenda and guidelines for future work. Several major research efforts were undertaken to implement the recommendations of the Copenhagen conference. All these efforts resulted in the publication of ICD-10 in 1992 in which in chapter V (F) pertained to the classification of mental disorders explaining their inclusion and exclusion terms.

2.3.2 Classification of Mental Disorders in ICD-10

A brief description of classification of mental disorders as per ICD-10 is given below:

- F00-F09: Organic, including symptomatic, mental disorders: Dementia, delirium, organic.
- F10-F19: Mental and behavioural disorders due to use of psychoactive substances: Alcohol, cocaine and tobacco.
- F20-F29: Schizophrenia, schizotypal and delusional disorders.
- F30-F39: Mood (affective) disorders: Manic, bipolar, depressive.
- F40-F48: Neurotic, stress-related and somatoform disorders: Phobia, OCD, adjustment, dissociative.
- F50-F59: Behavioural syndromes associated with physiological disturbances and physical factors: Eating, sleep, sexual disorders.
- F60-F69: Disorders of personality and behaviour in adult persons: Specific, impulse disorder, gender identity.
- F70-F79: Mental retardation
- F80-F89: Disorders of psychological development: Speech and language, pervasive development.
- F90-F98: Behavioural and emotional disorders with onset usually occurring in childhood and adolescence: Hyperkinetic, conduct, tic.
- F-99: Unspecified mental disorders.

Self Assessment Questions

1) Explain meaning of classification of psychopathology.

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2) Describe the purpose of classification of psychopathology.

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3) Give an account of approaches to the classification of psychopathology.

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4) Explain the initial efforts of classification of psychopathology.

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5) Describe the importance of ICD in classification of psychopathology.

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6) Present an account of classification of mental disorders prescribed in ICD-10.

2.4 DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS (DSM)

The Diagnostic and Statistical Manual of Mental Disorders, published by the American Psychiatric Association, is the handbook used most often in diagnosing mental disorders in the United States and other countries.

2.4.1 A Brief History of DSM

Need of statistical information regarding mental disorders stimulated revolution in the efforts of development of a classification system in the United States. The National census of 1840 used a single category, “idiocy/insanity”. Seven categories of mental disorders were mentioned in the 1880 census: mania, melancholia, monomania, paresis, dementia, dipsomania, and epilepsy. The American Psychiatric Association (APA), then known as Committee on Statistics, together with the National Commission on Mental Hygiene, developed a new guide for mental hospitals called the “Statistical Manual for the Use of Institutions for the Insane” in 1917, which included 22 diagnoses. Subsequently, this was revised several times by APA over the years.

2.4.2 Revisions of DSM

In view of needs arisen from World War II, a committee headed by psychiatrist and brigadier general William C. Menninger with the help of US psychiatrists developed a new classification scheme called Medical 203 in 1943.

DSM-I (1952): In 1949, the World Health Organisation published the sixth revision of the International Statistical Classification of Diseases (ICD-10) which included a section on mental disorders for the first time. Consequently, an APA Committee on Nomenclature and Statistics was empowered to develop a classification system for use in the United States. In 1950 the APA committee undertook a review and consultation to circulated the Diagnostic and Statistical Manual of Mental Disorders-1 (DSM-I) which was approved in 1951 and published in 1952. The structure and conceptual framework were the same as in Medical 203, and many passages of text identical. The manual was 130 pages long and listed 106 mental disorders. DSM-I made 94% changes in nomenclature from the prior system and seventy disorder terms used “Reaction,” e.g., schizophrenic reaction. This included reaction to internal conflict. DSM-I is criticised on the basis that it was psychoanalytic in its theoretical orientation. The term “Unconscious” was mentioned a few times in describing psychoneurotic disorders in DSM-I.

DSM-II (1968): Despite APA’s involvement in the revision of the mental disorder section of the ICD-8 in 1968, it also published a revision of the DSM in 1968, listed 182 disorders, and was 134 pages long. It was quite similar to the DSM-I. The term “reaction” was dropped but the term “neurosis” was retained. Both the DSM-I and the DSM-II reflected the predominant psychodynamic psychiatry, although they also included biological perspectives and concepts from Kraepelin’s system of classification. Symptoms were not specified in detail for specific disorders. Many of the disorders were seen as reflections of broad underlying conflicts or maladaptive reactions to life problems, rooted in a distinction between neurosis and psychosis (roughly, anxiety/depression broadly in touch with reality, or hallucinations/delusions appearing disconnected from reality). Sociological and biological knowledge was also incorporated, in a model that did not emphasise a clear boundary between normality and abnormality. After wide post publication criticism of DSM-II, the term “Homosexuality” was replaced with “Ego-dystonic Homosexuality” in 1973.

DSM-III (1980): To make the DSM nomenclature consistent with the International Statistical Classification of Diseases and Related Health Problems (ICD) the decision to create a new revision of the DSM was made in 1974 with Robert Spitzer as chairman of the task force. This revision was aimed at improving the uniformity and validity of psychiatric diagnosis, standardising diagnostic practices across the world and to facilitate the pharmaceutical regulatory process to avoid criticisms levelled on DSM-II. The criteria for many of the mental disorders were taken from the Research Diagnostic Criteria and Feighner Criteria. New categories of disorder and their criteria were established by consensus during meetings of the committee. The psychodynamic or physiologic view was abandoned, in favour of a regulatory or legislative model. A new “multi-axial” system attempted to yield a picture more amenable to a statistical population census, rather than just a simple diagnosis. DSM conceptualised each of the mental disorders as a clinically significant behavioural or psychological syndrome.

Finally published in 1980, the DSM-III was 494 pages long and listed 265 diagnostic categories. It rapidly came into widespread international use. DSM-III was published with 93% changes in nomenclature from the earlier version of DSM with diagnostic

criteria for each of the disorders mentioned. There was a multi-axial classification with five axes. DSM-III provided a vast increase in background information about each disorder, adding diagnostic features, associated features, cultural and gender features; prevalence, course, familiar patterns, differential diagnosis, decision trees and glossary. However, DSM-III was later criticized on the ground that 20-30 percent of the population would have been diagnosed as having behavioural disorders without having any serious mental problems.

DSM-III-R (1987): The DSM-III-R was published as a revision of DSM-III in 1987. Categories were renamed, reorganised, and significant changes in criteria were made. Six categories were deleted, while some new categories were added. Controversial diagnoses such as pre-menstrual dysphoric disorder and Masochistic Personality Disorder were discarded. “Sexual orientation disturbance” was also removed and was largely subsumed under “sexual disorder not otherwise specified” which can include “persistent and marked distress about one’s sexual orientation.” DSM-III-R contained 292 diagnoses and was 567 pages long.

DSM-IV (1994): DSM-IV was published in 1994 listing 297 disorders in 886 pages. Process of development of DSM-IV included extensive literature review of diagnoses, analyses to determine required change in criteria and multicenter field trials relating diagnoses to clinical practice. A major change from previous versions was the inclusion of a clinical significance criterion to almost half of all the categories, which required symptoms cause “clinically significant distress or impairment in social, occupational, or other important areas of functioning”.

DSM-IV (TR) (2000): A “Text Revision” of the DSM-IV, known as the DSM-IV-TR, was published in 2000. The diagnostic categories and the vast majority of the specific criteria for diagnosis were unchanged. The text sections giving extra information on each diagnosis were updated, as were some of the diagnostic codes in order to maintain consistency with the ICD.

2.5 DSM-IV (TR): THE CURRENT VERSION OF DSM

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is the standard for classifying mental disorders that are used by mental health professionals in the United States. It is intended to be applicable in a wide variety of contexts and used by clinicians and researchers of many different orientations, for example; biological, psychodynamic, cognitive, behavioural, interpersonal, family/systems.

The DSM IV (Text Revision) has been designed for use across settings such as inpatient, outpatient, partial hospitalisation, consultation-liaison, clinic, private practice and primary care. Professionals that use the DSM diagnosis are psychiatrists, psychologists, social workers, nurses, occupational and rehabilitation therapists, counsellors and other health and mental health professionals. The DSM is also a necessary tool for collecting and communicating accurate public health statistics. The DSM consists of three major components/features: the diagnostic classification, the diagnostic criteria sets and the descriptive text.

i) **The Diagnostic Classification:** The DSM-IV (TR) is a categorical classification system. The categories are prototypes, and a patient with a close approximation to the prototype is said to have that disorder with qualifiers, for example mild, moderate or severe forms of a disorder. For nearly half the disorders, symptoms must be sufficient to cause clinically significant distress or impairment in social, occupational,

or other important areas of functioning, although DSM-IV-TR removed the distress criterion from tic disorders and several of the paraphilias. Making a DSM diagnosis consists of selecting those disorders from the classification that best reflects the signs and symptoms that are afflicting the individual being evaluated. Associated with each diagnostic label is a diagnostic code, which is used primarily by institutions and agencies for data collection. These diagnostic codes are derived from the coding system used by all health care professionals in the United States, known as the ICD-9-CM.

ii) **The Diagnostic Criteria:** Each disorder included in the DSM-IV (TR) includes a set of diagnostic criteria including symptoms that are present and for how long. These criteria called inclusion criteria as well as those symptoms that must not be present called exclusion criteria qualify an individual for a particular diagnosis. Many users of the DSM-IV (TR) find these diagnostic criteria useful because they provide a compact description of each disorder. Use of this diagnostic criterion has increased diagnostic reliability and the likelihood that different individuals will assign the same diagnosis. It is important to remember that these criteria are meant to be used as a guideline by an informed clinician.

iii) **Descriptive Text:** The third component of the DSM-IV (TR) is the descriptive text that accompanies each disorder. The text of the DSM-IV (TR) systematically describes each disorder under the following headings: Diagnostic Features; Subtypes and/or Specifiers; Recording Procedures; Associated Features and Disorders; Specific Culture, Age, and Gender Features; Prevalence; Course; Familial Pattern; and Differential Diagnosis.

2.5.1 Multi-Axial Classifications

The DSM-IV (TR) recommends clinicians to assess an individual's mental state across five factors or axes. Together the five axes provide a broad range of information about the individual's functioning, not just a diagnosis. The system contains the following axes.

- 1) **Axis I: Clinical Disorders and Other Conditions That May Be a Focus of Clinical Attention:** This axis incorporates a wide range of clinical syndromes, including anxiety disorders, mood disorders, schizophrenia and other psychotic disorders, adjustment disorders, and disorders usually first diagnosed during infancy, childhood, or adolescence (except for mental retardation, which is coded on Axis II). Axis I also includes relationship problems, academic or occupational problems, and bereavement, conditions that may be the focus of diagnosis and treatment but that do not in themselves constitute definable psychological disorders. Also coded on Axis I are psychological factors that affect medical conditions, such as anxiety that exacerbates an asthmatic condition or depressive symptoms that delay recovery from surgery. The Axis I clinical disorder categories are as follows:
 - 1) Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence
 - 2) Delirium, Dementia, and Amnesic and Other Cognitive Disorders
 - 3) Mental Disorders Due to a General Medical Condition Not Elsewhere Classified
 - 4) Substance Related Disorders
 - 5) Schizophrenia and Other Psychotic Disorders
 - 6) Mood Disorders
 - 7) Anxiety Disorders

- 8) Somatoform Disorders
 - 9) Factitious Disorders
 - 10) Dissociative Disorders
 - 11) Sexual and Gender Identity Disorders
 - 12) Eating Disorders
 - 13) Sleep Disorders
 - 14) Impulse Control Disorders Not Elsewhere Classified
 - 15) Adjustment Disorders
 - 16) Other Conditions That May Be a Focus of Clinical Attention
- 2) **Axis II: Personality Disorders and Mental Retardation:** Personality disorders are enduring and rigid patterns of maladaptive behaviour that typically impair relationships with others and social functioning. These include antisocial, paranoid, narcissistic, and borderline personality disorders. Mental retardation, which is also coded on Axis II, involves pervasive intellectual impairment. People may be given either Axis I or Axis II diagnoses or a combination of the two when both apply. For example, a person may receive a diagnosis of an anxiety disorder (Axis I) and a second diagnosis of a personality disorder (Axis II). This axis includes following disorders:
- 1) Paranoid Personality Disorder
 - 2) Narcissistic Personality Disorder
 - 3) Schizoid Personality Disorder
 - 4) Avoidant Personality Disorder
 - 5) Schizotypal Personality Disorder
 - 6) Dependent Personality Disorder
 - 7) Antisocial Personality Disorder
 - 8) Obsessive-Compulsive Personality disorder
 - 9) Borderline Personality Disorder
 - 10) Personality Disorder Not Otherwise Specified
 - 11) Histrionic Personality Disorder
 - 12) Mental Retardation
- 3) **Axis III: General Medical Conditions:** All medical conditions and diseases that may be important to the understanding or treatment of an individual's mental disorders are coded on Axis III. For example, if hypothyroidism were a direct cause of an individual's mood disorder (such as major depression), it would be coded under Axis III. Medical conditions that affect the understanding or treatment of a mental disorder (but that are not direct causes of the disorder) are also listed on Axis III. For instance, the presence of a heart condition may determine whether a particular course of drug therapy should be used with a depressed person.
- 4) **Axis IV: Psychosocial and Environmental Problems:** The psychosocial and environmental problems that affect the diagnosis, treatment, or outcome of a mental disorder are placed on Axis IV. These include job loss, marital separation or divorce, homelessness or inadequate housing, lack of social support, the death or loss of a friend, or exposure to war or other disasters. Some positive life events, such as a job promotion, may also be listed on Axis IV, but only when they create problems for the individual, such as difficulties adapting to a new job. Table 1 lists examples from this axis.

Table 1: Psychosocial and Environmental Problems

Problem Categories	Examples
Problems with primary support group	Death of family members; health problems of family members; marital disruption in the form of separation, divorce, or estrangement; sexual or physical abuse within the family; child neglect; birth of a sibling
Problems related to the social environment	Death or loss of a friend; social isolation or living alone; difficulties adjusting to a new culture (acculturation); discrimination; adjustment to transitions occurring during the life cycle, such as retirement
Educational problems	Illiteracy; academic difficulties; problems with teachers or classmates; inadequate or impoverished school environment
Occupational problems	Work-related problems including stressful workloads and problems with bosses or co-workers; changes in employment; job dissatisfaction; threat of loss of job; unemployment
Housing problems	Inadequate housing or homelessness; living in an unsafe neighbourhood; problems with neighbours or landlord
Economic problems	Financial hardships or extreme poverty; inadequate welfare support
Problems with access to health care services	Inadequate health care services or availability of health insurance; difficulties with transportation to health care facilities
Problems related to interaction with the legal system/crime	Arrest or imprisonment; becoming involved in a lawsuit or trial; being a victim of crime
Other psychosocial problems	Natural or human-made disasters; war or other hostilities; problems with caregivers outside the family, such as counsellors, social workers, and physicians; lack of availability of social service agencies

Source: Adapted from the *DSM-IV-TR* (APA, 2000)

- 5) **Axis V: Global Assessment of Relational Functioning (GARF):** The clinician rates the client's current level of psychological, social, and occupational functioning using a 0-100 scale. The clinician may also indicate the highest level of functioning achieved for at least a few months during the preceding year. The level of current functioning indicates the current need for treatment or intensity of care. The level of highest functioning is suggestive of the level of functioning that might be restored. The GARF Scale can be used to indicate an overall judgment of the functioning of a family or other ongoing relationship on a hypothetical continuum ranging from competent, optimal relational functioning to a disrupted, dysfunctional relationship (APA, 2000).

Table 2: Global Assessment of Functioning (GAF) Scale

Code	Severity of Symptoms	Examples
91-100	Superior functioning across a wide variety of activities of daily life	Lacks symptoms Handles life problems without them “getting out of hand”
81-90	Absent or minimal symptoms, no more than everyday problems or concerns	Mild anxiety before exams Occasional argument with family members
71-80	Transient and predictable reactions to stressful events, or no more than slight impairment in functioning	Difficulty concentrating after argument with family Temporarily falls behind in schoolwork
61-70	Some mild symptoms, or some difficulty in social, occupational, or school functioning, but functioning pretty well	Feels down, mild insomnia Occasional truancy or theft within household
51-60	Moderate symptoms, or moderate difficulties in social, occupational, or school functioning	Occasional panic attacks Few friends, conflicts with co-workers
41-50	Serious symptoms, or any serious impairment in social, occupational, or school functioning	Suicidal thoughts, frequent shoplifting Unable to hold job, has no friends
31-40	Some impairment in reality testing or communication, or major impairment in several areas	Speech illogical Depressed man or woman unable to work, neglects family, and avoids friends
21-30	Strong influence on behaviour of delusions or hallucinations, or serious impairment in communication or judgment, or inability to function in almost all areas	Grossly inappropriate behaviour, speech sometimes incoherent Stays in bed all day, no job, home, or friends
11-20	Some danger of hurting self or others, or occasionally fails to maintain personal hygiene, or gross impairment in communication	Suicidal gestures, frequently violent Smears feces
1-10	Persistent danger of severely hurting self or others, or persistent inability to maintain minimal personal hygiene, or seriously suicidal act	Largely incoherent or mute Serious suicidal attempt, recurrent violence

Source: Adapted from the *DSM-IV-TR* (APA, 2000)

2.6 EVALUATION OF DSM-IV (TR)

DSM has provided a common language for discussing diagnoses. There has been an increase in attention to behaviours and the facilitation of the overall learning of psychopathology. Seligman (1990) has indicated that knowledge of diagnosis is important for counsellors so that they may provide a diagnosis for clients. In addition, the DSM diagnosis assists with accountability, record keeping, treatment planning, communication with other helping professionals and identification of client with issues beyond areas of expertise. The disadvantages associated with using the DSM have included the promotion of a mechanistic approach to mental disorder assessment. There is a false impression that the understanding of mental disorders is more advanced than is actually the case. There is an excessive focus on the signs and symptoms of mental disorders to the exclusion of a more in depth understanding of the client's problems including human development. The major issues of criticisms against DSM-IV (TR) are as follow:

- i) **Validity and reliability:** The most fundamental scientific criticism of the DSM concerns the validity and reliability of its diagnoses. This refers, roughly, to whether the disorders it defines are actually real conditions in people in the real world that can be consistently identified by its criteria. These are long-standing criticisms of the DSM, originally highlighted by the Rosenhan experiment in the 1970s, and continuing despite some improved reliability since the introduction of more specific rule-based criteria for each condition (Dalal & Sivakumar, 2009).

Critics argue that the DSM lacks validity because it has no relation to an agreed scientific model of mental disorder and therefore the decisions taken about its categories (or even the question of categories vs. dimensions) were not scientific ones; and that it lacks reliability partly because different diagnoses share many criteria, and what appear to be different criteria are often just rewordings of the same idea, meaning that the decision to allocate one diagnosis or another to a patient is to some extent a matter of personal prejudice (McLaren, 2007).

- ii) **Superficial symptoms:** By design, the DSM is primarily concerned with the signs and symptoms of mental disorders, rather than the underlying causes. It claims to collect them on the basis of statistical or clinical patterns and avoids causative or explanatory basis/biases. The DSM is based on an underlying structure that assumes discrete medical disorders that can be separated from each other by symptom patterns. However, its claim to be "atheoretical" is held to be unconvincing because it makes sense only if all mental disorders are categorical by nature, which only a biological model of mental disorder can satisfy. However, the Manual recognises psychological causes of mental disorder, e.g. PTSD, so that it negates its only possible justification (McLaren, 2007).

The DSM's focus on superficial symptoms is claimed to be largely a result of necessity (assuming such a manual is nevertheless produced), since there is no agreement on a more explanatory classification system. Reviewers note, however, that this approach is undermining research, including in genetics, because it results in the grouping of individuals who have very little in common except superficial criteria as per DSM or ICD diagnosis (Dalal & Sivakumar, 2009).

- iii) **Unjustified Categorical Distinctions:** Despite caveats in the introduction to the DSM, it has long been argued that its system of classification makes unjustified categorical distinctions between disorders, and uses arbitrary cut-offs between normal and abnormal. A psychiatric review noted that attempts to demonstrate

natural boundaries between related DSM syndromes or between a common DSM syndrome and normality have failed (Dalal & Sivakumar, 2009). Some argue that rather than a categorical approach, a fully dimensional, spectrum or complaint-oriented approach would better reflect the evidence (Bentall, 2006).

In addition, it is argued that the current approach based on exceeding a threshold of symptoms does not adequately take into account the context in which a person is living and to what extent there is internal disorder of an individual versus a psychological response to adverse situations (Wakefield, Schmitz, First, & Horwitz, 2007).. Axis IV of the DSM-IV (TR) includes a step for outlining “Psychosocial and environmental factors contributing to the disorder” once someone is diagnosed with that particular disorder. Because an individual’s degree of impairment is often not correlated with symptom counts and can stem from various individual and social factors, the DSM’s standard of distress or disability can often produce false positives (Spitzer & Wakefield, 1999). On the other hand, individuals who don’t meet symptom counts may nevertheless experience comparable distress or disability in their life.

- iv) **Cultural Bias:** Some psychiatrists argue that diagnostic standards of DSM-IV (TR) rely on an exaggerated interpretation of neurophysiological findings and so understate the scientific importance of social-psychological variables (Widiger, & Sankis, 2000). It is contended that the cultural and ethnic diversity of individuals is often discounted by researchers and service providers. In addition, current diagnostic guidelines have been criticized as having a fundamentally Euro-American outlook. It is argued that even when diagnostic criteria set is accepted across different cultures, it does not necessarily indicate that the underlying constructs have any validity within those cultures and reliable application can only demonstrate consistency, not legitimacy (Widiger, & Sankis, 2000).
- v) **Influence of Drug Companies:** The way the categories of the DSM-IV (TR) are structured and the number of categories have been substantially expanded is often attributed to the influence of pharmaceutical companies and psychiatrists (Healy, 2006). Roughly half of the authors who selected and defined the DSM-IV psychiatric disorders had financial relationships with the pharmaceutical industry at one time, raising the prospect of a direct conflict of interest.

In view of these criticisms and in pursuit of continuous improvements, the next (fifth) edition of the Diagnostic and Statistical Manual of Mental Disorders, DSM-5, is currently in consultation, planning and preparation. It is due for publication in May 2013. APA has made its draft versions public which includes several changes, including proposed deletion of several types of schizophrenia.

Self Assessment Questions

- 1) Explain the process of development of various editions of DSM.

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- 2) Describe the major components of DSM-IV (TR).

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3) Present an account of multi-axial approach to the classification of psychopathology as provided by DSM-IV (TR).

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4) Evaluate DSM-IV (TR) with its merits and demerits.

2.7 LET US SUM UP

Classification of psychological disorders refers to the process to construct categories of abnormal behaviours and to assign people to these categories on the basis of their behavioural attributes and dysfunctional symptoms. It fulfils the basic purposes of communication, control, comprehension, distinction and prognosis/prediction of psychological disorders. Psychologists use three approaches or strategies to classify disorders: categorical, dimensional and prototypical approach. There have been a number of individual efforts of classification of mental disorders. This worldwide organised effort for classification of diseases was stimulated by the publication of International Statistical Classification of Diseases and Related Health Problems-1 (ICD-1) by the World Health Organisation in 1900. However, it was only ICD-6 which was published with a separate section on mental disorder in 1949. The most recent, tenth edition of ICD was published in 1992 in which chapter V (F) pertained to the classification of mental disorders explaining their inclusion and exclusion terms.

The most influential efforts of classification of psychological disorders began with The Diagnostic and Statistical Manual of Mental Disorders (DSM), published by the American Psychiatric Association which is now used as the handbook for diagnosing mental disorders in the United States and other countries. After publication of its first edition, DSM-1 in 1952, its five subsequent editions have been published. The current version of DSM is DSM-IV (TR) published in 2000. The DSM-IV (TR) consists of three major components/features: the diagnostic classification, the diagnostic criteria sets and the descriptive text. The DSM-IV (TR) recommends clinicians to assess an individual's mental state across five factors or axes. Together the five axes provide a broad range of information about the individual's functioning, not just a diagnosis. Axis I assesses clinical disorders and other conditions that may be a focus of clinical attention. This axis incorporates a wide range of clinical syndromes, including anxiety disorders, mood disorders, schizophrenia and other psychotic disorders, adjustment disorders, and disorders usually first diagnosed during infancy, childhood,

or adolescence. Axis II assesses Personality Disorders and Mental Retardation. All medical conditions and diseases that may be important to the understanding or treatment of an individual's mental disorders are coded on Axis III. The psychosocial and environmental problems that affect the diagnosis, treatment, or outcome of a mental disorder are placed on Axis IV. On Axis V, Global Assessment of Relational Functioning (GARF), the clinician rates the client's current level of psychological, social, and occupational functioning using a 0-100 scale. DSM-IV (TR) is criticised on the issues of validity and reliability; classifying mental disorders on the basis of superficial symptoms, culturally biased and unjustified categorical distinctions; and influence of drug companies in classification.

2.8 UNIT END QUESTIONS

- 1) Explain meaning, purpose of and approaches to classification of psychopathology.
- 2) Describe the history of history of classification of psychopathology.
- 3) Describe the importance of ICD in classification of psychopathology and present an account of classification of mental disorders prescribed in ICD-10.
- 4) Provide a historical account of development of various editions of DSM and describe the major components of DSM-IV (TR).
- 5) Present an account of multi-axial approach to the classification of psychopathology as provided by DSM-IV (TR).
- 6) Evaluate DSM-IV (TR) with its merits and demerits.

2.9 GLOSSARY

Classification of Psychological Disorders	: classification of psychological disorders refers to process to construct categories and to assign people to these categories on the basis of their attributes.
Categorical Approach	: A categorical approach to classification assumes that distinctions among members of different categories are qualitative.
Dimensional Approach	: Dimensional approach to classification describes the objects of classification in terms of continuous dimensions.
Prototypical Approach	: A prototypical approach identifies some essential characteristics of a disorder and it also allows for certain non-essential variations that do not necessarily change the classification.
Diagnostic Criteria	: A diagnostic criteria provides a compact description of a disorder.
Multi-axial Classification	: Assessing an individual's mental state across various factors or axes to provide a broad range of information about the individual's functioning, not just a diagnosis, recommended by DSM-IV (TR).

- Personality Disorders** : Personality disorders are enduring and rigid patterns of maladaptive behaviour that typically impair relationships with others and social functioning. These include antisocial, paranoid, narcissistic, and borderline personality disorders.
- Mental Retardation** : Mental retardation involves pervasive intellectual impairment.
- Global Assessment of Relational Functioning (GARF)** : A 0-100 scale on which the clinician rates the client's current level of psychological, social and occupational functioning using.
- Validity and reliability of a Classification System** : This refers to whether the disorders as a classification system defines are actually real conditions in people in the real world that can be consistently identified by its criteria.

2.10 SUGGESTED READINGS

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UNIT 3 DEVELOPMENTAL PATHOGENESIS

Structure

- 3.0 Introduction
- 3.1 Objectives
- 3.2 Developmental Pathogenesis: Risk Factors
- 3.3 Developmental Causes of Psychopathologies
- 3.4 Biological Causes
 - 3.4.1 Genetic Vulnerabilities
 - 3.4.2 The Neuro-Endocrine System
 - 3.4.3 Physical Handicaps
 - 3.4.4 Early Physical Deprivation
- 3.5 Psychosocial Causes
 - 3.5.1 Parental Deprivation and Separation
 - 3.5.2 Childhood Traumas
 - 3.5.3 Parental Psychopathology
 - 3.5.4 Parenting Styles
 - 3.5.5 Inadequate Communication
 - 3.5.6 Disrupted Family Relationships
- 3.6 Socio-Cultural Causes
 - 3.6.1 The Socio-Cultural Environment
 - 3.6.2 Pathogenic Societal Influences
 - 3.6.3 Disorder Engendering Social Roles
 - 3.6.4 Social Change and Uncertainty
- 3.7 Let Us Sum Up
- 3.8 Unit End Questions
- 3.9 Glossary
- 3.10 Suggested Readings

3.0 INTRODUCTION

The intricacies of human development have always fascinated psychologists. Psychologists have studied developmental processes and used the knowledge gained from these investigations for better understanding of the changes that predictably occur in the later stage of life. This has made possible to link more effectively early precursors to the later expression of maladaptive and deviated behaviours. First of all, we will discuss general issues related to developmental pathogenesis. This will be followed by a description of biological causes of psychopathological development. Finally, psychosocial and socio-cultural factors of psychopathologies will be discussed.

3.1 OBJECTIVES

After reading this unit, you will be able to:

- Understand the risk factors of psychopathology;
- Explain the biological perspectives of developmental pathogenesis;

- Discuss the psychosocial causes of psychopathology; and
- Describe the socio-cultural factors of psychopathology.

3.2 DEVELOPMENTAL PATHOGENESIS: RISK FACTORS

The risk factor model is a paradigm that facilitates the understanding of developmental deviations. It can be applied at any stage of development. Risk factors have been divided into three large categories: those at the level of the individual, the family and the community.

The first category of risk factors is defined at the level of the individual. Both physical and emotional considerations are relevant. Examples include atypical genetic polymorphisms, deficits in perception and high levels of generalized anxiety. Variable possibilities for adaptation exist, but for a trait or condition to be considered a risk factor, there must be a demonstrated increase in the probability of subsequent emotional or behavioural disorder associated with the factor.

The second category of risk factors is conceptualised at the level of the family. One of the classic examples of a familial risk factor is a parent with a serious mental illness. It is difficult to define the mechanism by which this risk is transmitted. Each parent provides exactly one-half of the genome of the child. However, parents are also in a powerful position to shape the early environment of their children. The full range of family risk factors is quite broad, and extends beyond the influence of single individuals within the family to include the impact of family dynamics, which influence the development of the child. For example, a scapegoated child in a family environment that tolerates overt child maltreatment is at particularly high risk for the development of psychopathology.

The third category of risk factors is defined at the level of the community. Discrimination based on ethnic or racial status falls into this group of risk factors, as does social disadvantage. Although there is little controversy regarding the negative consequences of discrimination and poverty, the quantification of this risk has been problematic. Community risk factors rarely occur in the absence of individual and familial risk factors, making it difficult fully to understand their specific influence.

3.3 DEVELOPMENTAL CAUSES OF PSYCHOPATHOLOGIES

There have been a number of viewpoints regarding causal factors of psychopathologies. These viewpoints represent any of the many approaches to study human behaviour. None of these viewpoints completely explains abnormal behaviours and therefore, integrative evaluation of these viewpoints is essential. The major viewpoints of developmental pathogenesis are biological, psychodynamic, behavioural, psychosocial and socio-cultural viewpoints. All these viewpoints explain abnormal behaviour with the help of certain sets of causal factors.

3.4 BIOLOGICAL CAUSES

Biological viewpoint believes that cognitive, emotional and behavioural symptoms of psychological disorders originate from disorders of nervous system and endocrine system or they are inherited. A number of these causes are operative during pre-natal and post-natal developmental stages. These causes include genetic vulnerabilities, constitutional liabilities and physical deprivation.

3.4.1 Genetic Vulnerabilities

Genetics means what we inherit from our parents. This suggests how we look, feel and behave is predetermined by our genetic makeup. The field of behaviour genetics deals with phenomenon how genetic information in form of chromosomes from both father and mother is transmitted to children. Chromosomes contain genes; the genes transmit a biochemical code, which is responsible for determining the structure and activity of the body's protein. At the biochemical level, the genetic code leads to physiological and physical differences. These differences include like height, weight, colour of hair and colour of eyes, which are the result of number of different genes.

Behaviour genetics is the study of individual differences in behaviour that are attributable in part to differences in genetic makeup. The total genetic makeup of an individual, consisting of inherited genes, is referred to as the *genotype* (physical sequence of DNA), which is an individual's unobservable genetic constitution. In contrast, the totality of observable, behavioural characteristics, such as level of anxiety, is referred to as the *phenotype*. The genotype is fixed at birth, but it should not be viewed as a static entity. Genes controlling various features of development switch off and on at specific times, for example, to control various aspects of development. Indeed, genetic programs are quite flexible—they respond in remarkable ways to things that happen to us.

The phenotype changes over time and is generally viewed as the product of an interaction between the genotype and the environment. For example, an individual may be born with the capacity for high intellectual achievement, but whether he or she develops this genetically given potential depends on such environmental factors as upbringing and education. Hence, any measure of intelligence is best viewed as an index of the phenotype. A recent study by Turkheimer and colleagues confirmed this proposition (Turkheimer et al., 2003). A number of studies have demonstrated high heritability for IQ (Plomin, 1999). What Turkheimer et al. found, though, was that heritability depended on environment. The study included 319 twin pairs of 7-year-olds (114 identical, 205 fraternal). Many of the children were living in families either below the poverty line or with a low family income. Among the families of lower socioeconomic status (SES), 60 percent of the variability in children's IQ was attributable to the environment. Among the higher SES families, the opposite was found. That is, variability in IQ was more attributable to genes than environment. Thus, being in an impoverished environment may have deleterious effects on IQ whereas being in a more affluent environment may not help all that much.

As we noted above, we know now that genes and environments work together. Life experience shapes how our genes are expressed, and our genes guide us in behaviours that that a given person's sensitivity or reaction to an environmental event is influenced by genes. Adoption studies can be a method for studying gene–environment interaction. In one study three groups of adoptees were compared on the criterion of antisocial personality disorder (APD): (1) adoptees who had a biological parent with APD and were raised in an unhealthy adoptive family (e.g., parental conflict, abuse, alcohol/drugs in the adoptive family), (2) adoptees who had a biological parent with APD but were raised in a healthy family; and (3) adoptees who had no biological parent with APD but were raised in an unhealthy adoptive family. This was found that adoptees of the first group were more likely to develop APD than two other groups of adoptees (Cadoret et al., 1995). Thus, genes (APD biological parent) and environment (unhealthy adoptive family) worked together to increase the risk for developing antisocial personality disorder.

A different (and true) example of a gene–environment interaction involves depression. In one longitudinal study, a large sample of children in New Zealand was followed across time from the age of five until their mid-twenties (Caspi et al., 2003). Across this time, the researchers assessed a number of variables, including early childhood maltreatment (abuse) and depression as an adult. They also measured a particular gene called the **serotonin transporter gene** (5-HTT). This gene has a polymorphism such that some people have two short alleles; some have two long alleles, and some have one short and one long allele.

They found that those individuals who had either the short-short allele or the short-long allele combinations of the 5-HTT gene and were maltreated as children were more likely to have depression as adults than either those people who had the same gene combination but no childhood maltreatment or those people who were maltreated as children but had the long-long allele combination of the gene. Thus, having the gene was not enough to predict depression, nor was the presence of early life stress. Rather, it was the specific combination of the gene configuration and environmental events that predicted depression. They found the same gene–environment interaction for having at least one short allele of the gene and reports of stressful life events. That is, those people who reported a good deal of stressful life events and had at least one short allele of the 5-HTT gene were at greater risk of developing depression.

It is critical to recognise that various mental disorders are disorders of the phenotype, not of the genotype. Thus, it is not correct to speak of the direct inheritance of schizophrenia or anxiety disorders; at most, only the genotypes for these disorders can be inherited. Whether these genotypes will eventually engender the phenotypic behaviour disorders will depend on environment and experience; a predisposition, also known as a *diathesis*, may be inherited, but not the disorder itself. A genetic diathesis is a tendency that can be expressed or not depending on environmental circumstances.

3.4.2 The Neuro-Endocrine System

The neuro-endocrine system has been implicated in psychopathology and the most important neuro-endocrine system is the *HPA axis*. The HPA axis is central to the body's response to stress, and stress figures prominently in many of the psychological disorders. When under stress or faced with threat, the hypothalamus causes corticotrophin releasing hormone (CRF) to be released, which then communicates with the *pituitary gland*. The pituitary then releases adreno-corticotrophic hormone, which travels via the blood to the adrenal glands. The outer layers of the adrenal glands are referred to as the *adrenal cortex*, the stress hormone. This is not a fast moving system like the autonomic nervous system rather; it takes about 20 to 40 minutes for cortisol release to peak. After the stress or threat has remitted, it can take up to an hour for cortisol to return to baseline (i.e., before the stress) levels (Dickerson & Kemeny, 2004).

Studies in this area are uniquely integrative. That is, they begin with a psychological concept, stress and examine how stress is manifested in the body, the HPA axis. For example, in a series of animal studies, researchers have shown that rats and primates that are exposed to early trauma, such as being separated from their mothers, show elevated activity in the HPA axis when they are exposed to stressors later in life (Gutman & Nemeroff, 2003). Like gene–environment interactions, it is hard to consider biology and environment separately—biology may create increased reactivity to the environment, and early experiences may influence biology. Thus, chronic stress and

its effects on the HPA axis are linked to disorders as diverse as schizophrenia, depression, and posttraumatic stress disorder.

3.4.3 Physical Handicaps

Pre or post-natal abnormalities or environmental conditions may result in physical defects. The most common birth difficulty associated with later mental disorders is low birth weight. Low birth weight is most often a factor in premature births. Nutritional deficiencies, disease, exposure to radiation, drugs, severe emotional stress, or the mother's excessive use of alcohol or tobacco are some common causes of low birth weight. As might be expected, socio-economic status is related to fetal and birth difficulties, the incidence of which is several times greater among mothers of lower socio-economic levels (Kopp & Kaler, 1989). Because low birth weight is often associated with so many environmental adversaries, it is often difficult to disentangle which actually play a causal role in the negative outcomes that may result.

3.4.4 Early Physical Deprivation

Through a remarkable set of complex processes, our digestive, circulatory, and other bodily functions work to maintain our body's physiological equilibrium integration. However, injuries and diseases strike all of us from time to time and upset our normal equilibriums, the psychological repercussion from such events can be profound. Depressions, for example, frequently accompany significant physical illnesses, in part because illnesses painfully remind us of the limits of our control over our lives. Even without serious illness or disability, people may experience challenges to their equilibriums. In the following section, we deal with two such situations deprivation of basic physiological needs and non-optimal levels of stimulation.

Deprivation of Basic Physiological Need: The most basic human requirements are those for food, oxygen, water, sleep, and the elimination of wastes. It is recognised that chronic but even relatively mild sleep deprivation can have adverse emotional consequences in children and adolescents. For example, in an extensive review of the empirical literature Carskadon (1990) demonstrated that over the course of adolescence there is a pattern of decreasing total sleep time. This pattern was associated with a good deal of daytime sleepiness. She argued that the performance lapses that are associated with excessive sleepiness could in turn lead to an increased vulnerability to accidents and to the use of caffeine and alcohol, and to mood and behaviour problems.

Prolonged food deprivation also affects psychological functioning. In one study, semi-starved persons became irritable, unsociable, and increasingly unable to concentrate on or daydream about anything but food. The men's predominant mood was one of gloom and depression, accompanied by apathy, feelings of inadequacy, and loss of interest in sex (Keys et al, 1950). The most tragic deprivation is seen in malnourished young children. Severe malnutrition is associated with a host of other potentially damaging variables such as parental neglect and limited access to health care (Lozoff, 1989) impairs physical development and lowers resistance to disease. It also blocks brain growth resulting in markedly lowered intelligence and enhanced risk for disorders such as attention-deficit disorder (Lozoff, 1989).

Stimulation and Activity: We have known for some time that healthy mental development depends on a child's receiving adequate amounts of stimulation from the environment. In addition to psychological vulnerabilities that can be induced by too little stimulation the physical development of the brain is adversely affected by a lesser environmental

stimulation. Conversely, biological development is enhanced by enriched and complex environment. These include changes in brain chemistry and structure. On the other hand, there are limits to how much stimulation is beneficial to a developing organism. We know that sensory overload can impair adult functioning, and although we do not yet have evidence on this, we might assume that infants and children are similarly affected. In general, we each seem to have an optimal level of stimulation and activity that psychological functioning. Under excessive pressure, we may strive to reduce some conditions-such as boredom-we may strive to increase the level of stimulation by doing something engaging, such as antisocial personalities, have higher-than average needs for excitement.

Self Assessment Questions

1) Explain the risk factors in developmental pathogenesis.

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2) Describe a general outline of biological causes of psychopathology.

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3) Give an account of genetic vulnerabilities for psychopathology.

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4) Explain the role played by neuro-endocrine system in developmental pathogenesis.

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5) Explain physical handicaps and early physical deprivation as the causes of psychopathology.

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3.5 PSYCHOSOCIAL CAUSES

3.5.1 Parental Deprivation and Separation

Some children are raised in an institution where, compared with an ordinary home, there is less warmth and physical contact; less intellectual, emotional, and social stimulation and a lack of encouragement and help in positive learning. It is clear that many children deprived of normal parenting in infancy and early childhood show maladaptive personality development and are at risk for psychopathology. Institutionalisation later in childhood in a child who has already had good attachment experience is not so damaging (Rutter, 1987). However, even among those institutionalised at an early age, some show resilience and do well in adulthood. One important protective factor found to influence was whether the child went from the institution into a harmonious family or a discordant one (Rutter, 1990). Other influential protective factors were having some good experiences at school, whether in the form of social relationship, or athletic or academic success, or having a supportive marital partner to a better sense of self-esteem or self-efficacy.

Most infants subjected to parental deprivation are not separated from their parents, but rather suffer from inadequate care at home. In these situations, parents typically neglect or devote little attention to their children and are generally rejecting. Parental rejection of a child may be demonstrated in various ways-by physical neglect, denial of love and affection, lack of interest in the child's activities and achievements, failure to spend time with the child and lack of respect for the child's rights and feeling. In a minority of cases, it also involves cruel and abusive treatment. Parental rejection may be partial or complete, passive or active, or subtly or overtly cruel.

The effects of such deprivation and rejection may be very serious. For example, delineated failure to thrive that is a serious disorder of growth and development frequently requiring admission to the hospital. Such children are thought to be at risk for behaviour problems, delays in development and severe depression. Abused and maltreated infants and toddlers are also quite likely to develop atypical patterns of attachment (Cicchetti & Toth, 1995) characterised by bizarre, disorganised and inconsistent behaviour with the caregiver.

Bowlby (1973) summarized the traumatic effects for children for 2 to 5 years old of being separated from their parents during prolonged periods of hospitalisation. First, there are the short-term or acute effects of the separation, which can include significant despair during the separation and detachment from the parents upon reunion. Bowlby considered this to be a normal response to prolonged separation, even in securely attached infants. Children who undergo such separation may develop an insecure attachment. In addition, there can be long-term effects of early separation from one or both parents. For example, such separation can cause an increased vulnerability to stressors in adulthood making it more likely that the person will become depressed (Bowlby, 1980).

3.5.2 Childhood Traumas

The term psychic trauma is used to describe any aversive experience that had harmful psychological effects on an individual. Such traumas make psychological wounds that may never completely heal. As a result, later stress that reactivates these wounds may be particularly difficult for an individual to handle; this often explains why a person has difficulty with a problem that is not especially stressful to another.

3.5.3 Parental Psychopathology

In general, it has been found that parents who have various forms of psychopathology, including schizophrenia, depression, anti social personality disorder and alcoholism, tend to have children who are at heightened risk for a wide range of developmental difficulties. Although some of these effects undoubtedly have a genetic effects component, many researchers believe that genetic effects cannot account for all of the adverse effects that parental psychopathology has on children. For example, the children of seriously depressed parents are at enhanced risk for disorder themselves (Cicchetti & Toth, 1995), at least partly because depression makes for unskilful parenting, notably including inattentiveness to a child's many needs and being ineffective in managing and disciplining the child. In addition children of alcoholics have elevated rates of truancy and substance abuse and greater likelihood of dropping out of school, as well as higher levels of anxiety and depression and lower levels of self-esteem (Chassin, Rogosch, & Barrera, 1991).

3.5.4 Parenting Styles

There are also less extreme differences in parenting styles than may occur with various forms of parental psychopathology that nonetheless can have a significant impact on a child's development and increase their risk for psychopathology. In the past, discipline was conceived of as a method for both punishing undesirable behaviour and preventing or deterring such behaviour in the future. Discipline is now thought of more positively as providing needed structure and guidance for promoting a child's healthy growth.

The authoritative style is one in which the parents are both very warm and careful to set clear limits and restrictions regarding certain kinds of behaviour, but also allow considerable freedom within certain limits. This style of parenting is associated with the most positive early social development, with the children tending to be energetic and friendly and showing development of general competencies for dealing with others and with their environments (Baumrind, 1975). When followed into adolescence in a longitudinal study, children of authoritative parents continue to show positive outcomes. Parents with an authoritarian style are high on control but low on warmth and their children tend to be conflicted, irritable, and moody (Baumrind, 1975). When followed into adolescence, these children had more negative outcomes, with the boys doing particularly poorly in social and cognitive skills. If such authoritarian parents also use overly severe discipline in the form of physical punishment as opposed to the withdrawal of approval and privileges, the result tends to be increased aggressive behaviour on the part of the child.

A third parenting style is the permissive-indulgent style, in which parents are high on warmth but low on discipline and control. This style of parenting is associated with impulsive and aggressive behaviour in children (Baumrind, 1975). Overly indulged children are characteristically spoiled, selfish, inconsiderate and demanding. In a classic study Sears (1961) found that much permissiveness and little discipline in a home were correlated positively with antisocial and aggressive behaviour, particularly during middle and later childhood. Unlike rejected and emotionally deprived children, indulged children enter readily into interpersonal relationship but they exploit people for their own purpose in the same way that they have learned to exploit their parents. Finally, parents who are low both on warmth and on control represent the neglectful-uninvolved style. This style of parental uninvolved is associated with disruptions in attachment during childhood and with moodiness, low self-esteem and conduct problems later in childhood (Baumrind, 1991). These children of uninvolved parents also have problems with peer relations and with academic performance.

3.5.5 Inadequate Communication

Parents sometimes discourage a child from asking questions and in other ways fail to foster the information exchange essential for helping the child develop essential competencies. Inadequate communication may take a number of forms. Some parents are too busy or preoccupied with their own concerns to listen to their children and to try to understand the conflicts and pressures they are facing. As a consequence, these parents often fail to give needed support and assistance, particularly when there is crisis. Other parents have forgotten that the world often looks different to a child or adolescent—rapid social change can lead to a communication gap between generations. In other instances, faulty communication may take more deviant forms in which messages become completely garbled because a listener distorts, disconfirms, or ignores a speaker's intended meaning.

3.5.6 Disrupted Family Relationships

The disturbed family structure is an overarching risk factor that increases an individual's vulnerability to particular stressors. We will distinguish between intact families where there is significant marital discord and families that have been disrupted by divorce or separation. In some cases of marital discord or conflict, one or both of the parents is not gaining satisfaction from the relationship. One spouse may express feelings of frustration and disillusionment in hostile ways such as nagging, criticizing, and doing things purposely to annoy the person. Seriously discordant relationships of long standing are likely to be frustrating, harmful and generally damaging in their effects on the adults and their children (Emery & Kitzman, 1995). More severe cases of marital discord may expose children to one or more of the stressors we have already discussed: child abuse or neglect, the effects of living with a parent with a serious mental disorder, authoritarian or neglectful/uninvolved parenting, and spouse abuse. In all these cases, the children are caught up in an unwholesome and irrational psychological environment and as they grow up they may find it difficult to establish and maintain marital and other intimate relationships.

In many cases a family is incomplete as a result of death, divorce, separation or some other circumstance. Effects of Divorce on children Divorce can have traumatic effects on children. Feeling of insecurity and rejection may be aggravated by conflicting loyalties and by the spoiling the children receive while staying with one of the parents. Not surprisingly, some children do develop serious maladaptive responses. Delinquency and a wide range of other psychological problems are much more frequent among those from intact families, although it is likely that a contributing factor here is prior or continuing parental strife. Finally a number of studies have demonstrated that there may well be long-term effects of divorce on adaptive functioning into adulthood, such as lower educational attainment, lower income and lower life-satisfaction. The effects of divorce on children are often more favorable than the effects of remaining in a home torn by marital conflict (Emery & Kitzman 1995).

3.6 SOCIO-CULTURAL CAUSES

Discussion of the socio-cultural factors that increase our vulnerability to the development of abnormal behaviour will be focused by the role of culture in affecting an individual's behaviour patterns. There are several factors in the social environment that may increase vulnerability: low socio-economic class, disorder-engendering social roles, prejudice and discrimination, economic and employment problems and social change and uncertainty.

3.6.1 The Socio-Cultural Environment

In much the same way that we receive a genetic inheritance, we also receive a socio-cultural inheritance that is the end product of thousands of years of social evolution. Because each group fosters its own cultural patterns by systematically teaching its offspring, all its members tend to be somewhat alike to conform to certain basic personality types. Children reared among head-hunters become head-hunters; children in societies that do not sanction violence learn to settle their differences in nonviolent ways. This more uniform and thorough the education of the younger member of a group, the more alike they will become.

Subgroup within a general socio-cultural environment, such as family, sex, age, class, occupational, ethnic and religious group foster beliefs and norms of their own, largely by means of social roles that their members learn to adopt. Expected role behaviours exist for a student, a teacher, an army officer, a priest, a nurse and so on. Because most people are members of various subgroups, they are subject to various role demands, which also change over time. In fact, an individual's life can be viewed as a succession of roles—child, student, worker, spouse, parents and senior citizen. When social roles are conflicting, unclear or uncomfortable or when an individual is unable to achieve a satisfactory role in a group, healthy personality development may be impaired—just as it is when a child is rejected by juvenile peer group.

3.6.2 Pathogenic Societal Influences

There are many sources of pathogenic social influences, some of which stem from socio-economic factors and other from socio-cultural factors regarding role expectation and the destructive forces of prejudice and discrimination. An inverse correlation exists between socio-economic status (SES) and the prevalence of abnormal behaviour—the lower the socio-economic class, the higher the incidence of abnormal behaviour. The strength of the correlation seems to vary with different types of disorders. For example, antisocial personality disorder is strongly related to social class, occurring at three times the rate in the lowest income category as in the highest income category, whereas depressive disorders occur only about 50 percent more often in the lowest income category as in the highest income category (Kessler et al., 1994).

3.6.3 Disorder Engendering Social Roles

An organised society, even an “advanced” one sometimes asks its members to perform roles in which the prescribed behaviours either are deviant themselves or may produce maladaptive reactions. Soldiers who are called upon by their superiors (and ultimately by their society) to deliberately kill and hurt other human being may subsequently develop serious feeling of guilt. They may also have latent emotional problems resulting from the horrors commonly experienced in combat and hence be vulnerable to disorder.

3.6.4 Social Change and Uncertainty

The rate and pervasiveness of change today are different from anything our ancestors ever experienced. All aspects of our lives are affected—our education, our jobs, our families, our leisure pursuits, our finances and our beliefs and values. Constantly trying to keep up with the numerous adjustments demanded by these changes is a source of constant and considerable stress. Simultaneously, we confront inevitable crises as the earth's consumable natural resources fall off and as our environment become increasingly noxious with pollutants. Certain societies have increasing problems

with drugs and crime. On the contrary, our attempts to cope with exiting problems increasingly seem to create new problems that are as bad or worse. The resulting despair, demoralisation and sense of helplessness are well-established predisposing conditions for abnormal reaction to stressful events (Seligman, 1998).

Self Assessment Questions

- 1) Explain parental deprivation, separation and childhood traumas as potential causes of psychopathology.

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- 2) Describe the parental psychopathology and parenting styles contributing to the development of psychopathology.

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- 3) Present an account of Inadequate Communication Disrupted Family Relationships in developmental pathogenesis.

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- 4) Evaluate various socio-cultural causes in development of psychopathology.

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3.7 LET US SUM UP

The intricacies of human development have always fascinated psychologists. Psychologists have studied developmental processes and used the knowledge gained from these investigations for better understanding of the changes that predictably occur in the later stage of life. This has made possible to link more effectively early precursors to the later expression of maladaptive and deviated behaviours. The risk factor model is a paradigm that facilitates the understanding of developmental deviations. It can be applied at any stage of development. Risk factors have been divided into three large categories: those at the level of the individual, the family and the community. There have been a number of viewpoints regarding causal factors of

psychopathologies. These viewpoints represent any of the many approaches to study human behaviour. None of these viewpoints completely explains abnormal behaviours and therefore, integrative evaluation of these viewpoints is essential. The major viewpoints of developmental pathogenesis are biological, psychodynamic, behavioural, psychosocial and socio-cultural viewpoints. All these viewpoints explain abnormal behaviour with the help of certain sets of causal factors.

Biological viewpoint believes that cognitive, emotional and behavioural symptoms of psychological disorders originate from disorders of nervous system and endocrine system or they are inherited. A number of these causes are operative during pre-natal and post-natal developmental stages. These causes include genetic vulnerabilities, neuro-endocrine system and physical handicaps and deprivation. Psychosocial factors include Parental Deprivation and Separation, Childhood Traumas, Parental Psychopathology, Parenting Styles, Inadequate Communication and Disrupted Family Relationships. Socio-cultural factors that increase our vulnerability to the development of abnormal behaviour are dominated by the role of culture in affecting an individual's behaviour patterns. There are several factors in the social environment that may increase vulnerability: low socioeconomic class, disorder-engendering social roles, prejudice and discrimination, economic, employment problems, social change, and uncertainty.

3.8 UNIT END QUESTIONS

- 1) Present an account of the risk factors of psychopathology and give an outline of causal factors of psychopathology.
- 2) Explain the biological perspectives of developmental pathogenesis.
- 3) Discuss the psychosocial causes of psychopathology.
- 4) Describe the socio-cultural factors of psychopathology.

3.9 GLOSSARY

The risk factor model	: The risk factor model is a paradigm that facilitates the understanding of developmental deviations.
Behaviour genetics	: Behaviour genetics is the study of individual differences in behaviour that are attributable in part to differences in genetic makeup.
Genotype	: The total genetic makeup of an individual, consisting of inherited genes, is referred to as the genotype.
Phenotype	: Phenotype is any <i>observable characteristic</i> , trait or behaviour of an individual resulting from the expression of an organism's genes as well as the influence of environmental factors and the interactions between the two.
The HPA axis	: The HPA axis is central to the body's response to stress, and stress figures prominently in many of the psychological disorders, which includes hypothalamus, pituitary and adrenal cortex.

- Authoritative parenting** : The authoritative parenting style is one in which the parents are both very warm and careful to set clear limits and restrictions regarding certain kinds of behaviour, but also allow considerable freedom within certain limits.
- Authoritarian parenting** : Authoritarian parenting refers to a style in which Parents are high on control but low on warmth toward the child.
- Permissive-indulgent parenting** : The permissive-indulgent parenting style is one in which parents are high on warmth but low on discipline and control.

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UNIT 4 CHILDHOOD MENTAL DISORDERS

Structure

- 4.0 Introduction
- 4.1 Objectives
- 4.2 Pervasive Developmental Disorders
 - 4.2.1 Autistic Disorder
 - 4.2.2 Rett's Disorder
 - 4.2.3 Asperger Syndrome
 - 4.2.4 Childhood Disintegrative Disorder (CDD)
 - 4.2.5 Pervasive Developmental Disorder not otherwise Specified (PDD-NOS)
- 4.3 Attention Deficit Hyperactive Disorders (ADHD)
- 4.4 Other Childhood Psychopathologies
 - 4.4.1 Oppositional Defiant Disorder
 - 4.4.2 Conduct Disorder
 - 4.4.3 Anxiety Disorders: Separation Anxiety Disorder
 - 4.4.4 Tick Disorders
 - 4.4.5 Childhood Depression
- 4.5 Mental Retardation
- 4.6 Let Us Sum Up
- 4.7 Unit End Questions
- 4.8 Glossary
- 4.9 Suggested Readings

4.0 INTRODUCTION

Although it is sometimes assumed that childhood and adolescence are times of carefree bliss, many children and adolescents have one or more diagnosable mental disorders. Most of these disorders may be viewed as exaggerations or distortions of normal behaviours and emotions. Like adults, children and adolescents vary in temperament. Some are shy and reticent; others are socially exuberant. Some are methodical and cautious, and others are impulsive and careless. Whether a child is behaving like a typical child or has a disorder is determined by the presence of impairment and the degree of distress related to the symptoms. First, we will discuss various types of pervasive developmental disorders as prominent childhood mental disorders. This will be followed by a description of Attention Deficit Hyperactive Disorders (ADHD). We will then discuss other childhood psychopathologies and mental retardation.

4.1 OBJECTIVES

After reading this unit, you will be able to:

- Explain pervasive developmental disorders as prominent childhood mental disorders;

- Present an account of various types of pervasive developmental disorders;
- Explain Attention Deficit Hyperactive Disorders (ADHD);
- Understand other childhood psychopathologies; and
- Present an account of mental retardation.

4.2 PERVASIVE DEVELOPMENTAL DISORDERS

The term “pervasive development disorders,” also called PDDs, refers to a group of conditions that involve delays in the development of many basic skills, most notably the ability to socialise with others, to communicate, and to use imagination. Children with these conditions often are confused in their thinking and generally have problems understanding the world around them. Because these conditions typically are identified in children around 3 years of age, a critical period in a child’s development, they are called developmental disorders. Although the condition begins far earlier than 3 years of age, parents often do not notice a problem until the child is a toddler who is not walking, talking, or developing as well as other children of the same age.

The use of the word “pervasive” to describe these illnesses is somewhat misleading. The definition of pervasive is “to be present throughout,” but children with PDDs generally do not have problems in all areas of functioning. Rather, most children with PDDs have specific problem areas and often function very well in other areas. Children with PDDs, such as autism, can display a wide range of symptoms that can range in severity from mild to disabling. They also vary widely in their individual abilities, intelligence, and behaviour. General symptoms that may be present to some degree in a child with a PDD include:

- Difficulty with verbal communication, including problems using and understanding language
- Difficulty with non-verbal communication, such as gestures and facial expressions
- Difficulty with social interaction, including relating to people and to his or her surroundings
- Unusual ways of playing with toys and other objects
- Difficulty adjusting to changes in routine or familiar surroundings
- Repetitive body movements or patterns of behaviour, such as hand flapping, spinning and head banging
- Changing response to sound (The child may be very sensitive to some noises and seem to not hear others)
- Temper tantrums
- Difficulty sleeping
- Aggressive behaviour
- Fearfulness or anxiety (nervousness).

4.2.1 Autistic Disorder

Autism is a developmental disorder that is characterised by impaired development in communication, social interaction, and behaviour. Autism afflicts one out of every 100 to 166 children and it affects the lives of many children and their families

(DiCicco-Bloom et al, 2006). It tends to affect about five boys to every one girl (First, 2008). Autism is classified as a pervasive developmental disorder (PDD), a category of disorders that is often described interchangeably with the broad spectrum of developmental disorders affecting young children and adults called the autistic spectrum disorders (ASD). The range of these disorders varies from severely impaired individuals with autism to other individuals who have abnormalities of social interaction but normal intelligence, Asperger's syndrome. The ways in which autism is exhibited can differ greatly. Additionally, autism can be found in association with other disorders such as mental retardation and certain medical conditions. The degree of autism can range from mild to severe. Mildly affected individuals may appear very close to normal. Severely afflicted individuals may have an extreme intellectual disability and unable to function in almost any setting.

In the past, autism has been confused with childhood schizophrenia or childhood psychosis. It has also been misunderstood as schizotypal personality disorder in some adults. As additional research information about autism becomes available, the scope and definition of the condition continues to become more refined. Some of the past confusion about the disorder has been resolved.

Symptoms of autism

The current revision of Diagnosis and Statistical Manual of Mental Disorders, DSM-IV-TR identifies three features that are associated with autism:

- Impairment in social interaction
- Communication and
- Behaviours

Impairment in social interaction

Individuals with autism fail to develop normal personal interactions in virtually every setting. This means that affected persons fail to form the normal social contacts that are such an important part of human development. This impairment may be so severe that it even affects the bonding between a mother and an infant. It is important to note that, contrary to popular belief, many, if not most, persons with this disorder are capable of showing affection, demonstrating affection bonding with their mothers or other caregivers. However, the ways in which individuals with autism demonstrate affection and bonding may differ greatly from the ways in which others do so. Their limited socialisation may erroneously lead parents and paediatricians away from considering the diagnosis of autism.

As the child develops, interaction with others continues to be abnormal. Affected behaviours can include eye contact, facial expressions, and body postures. There is usually an inability to develop normal peer and sibling relationships and the child often seems isolated. There may be little or no joy or interest in normal age-appropriate activities. Affected children or adults do not seek out peers for play or other social interactions. In severe cases, they may not even be aware of the presence of other individuals.

Communication

Communication is usually severely impaired in persons with autism. What the individual understands (receptive language) as well as what is actually spoken by the individual (expressive language) are significantly delayed or nonexistent. Deficits in language

comprehension include the inability to understand simple directions, questions, or commands. There may be an absence of dramatic or pretend play and these children may not be able to engage in simple age-appropriate childhood games. Teens and adults with autism may continue to engage in playing with games that are for young children.

Individuals with autism who do speak may be unable to initiate or participate in a two-way conversation (reciprocal). Frequently the way in which a person with this disorder speaks is perceived as unusual. Their speech may seem to lack the normal emotion and sound flat or monotonous. The sentences are often very immature: “want water” instead of “I want some water please.” Those with autism often repeat words or phrases that are spoken to them. For example, you might say, “Look at the airplane!” and the child may respond “at airplane,” without any knowledge of what was said. This repetition is known as echolalia. Memorisation and recitation of songs, stories, commercials, or even entire scripts is not uncommon. While many feel this is a sign of intelligence, the autistic person usually does not appear to understand any of the content in his or her speech.

Behaviours

Persons with autism often exhibit a variety of repetitive, abnormal behaviours. There may also be a hypersensitivity to sensory input through vision, hearing, or touch (tactile). As a result, there may be extreme intolerance to loud noises or crowd, visual stimulation or things that are felt. Birthday parties and other celebrations can be disastrous for some of these individuals. Wearing socks or tags on clothing may be perceived as painful. Sticky fingers, playing with modelling clay, eating birthday cake or other foods, or walking barefoot across the grass can be unbearable. On the other hand, there may be an underdeveloped (hyposensitivity) response to the same type of stimulation. This individual may use abnormal means to experience visual, auditory, or tactile (touch) input. This person may head bang, scratch until blood is drawn, scream instead of speaking in a normal tone, or bring everything into close visual range. He or she might also touch an object, image or other people thoroughly just to experience the sensory input.

Children and adults who have autism are often tied to routine and many everyday tasks may be ritualistic. Something as simple as a bath might only be accomplished after the precise amount of water is in the tub, the temperature is exact, the same soap is in its assigned spot and even the same towel is in the same place. Any break in the routine can provoke a severe reaction in the individual and place a tremendous strain on the adult trying to work with him or her.

There may also be non-purposeful repetition of actions or behaviours. Persistent rocking, teeth grinding, hair or finger twirling, hand flapping and walking on tiptoe are not uncommon. Frequently, there is a preoccupation with a very limited interest or a specific plaything. A child or adult may continually play with only one type of toy. The child may line up all the dolls or cars and the adult line up their clothes or toiletries, for example, and repeatedly and systematically perform the same action on each one. Any attempt to disrupt the person may result in extreme reactions on the part of the individual with autism, including tantrums or direct physical attack. Objects that spin, open and close, or perform some other action can hold an extreme fascination. If left alone, a person with this disorder may sit for hours turning off and on a light switch, twirling a spinning toy, or stacking nesting objects. Some individuals can also have an inappropriate bonding to specific objects and become hysterical without that piece of string, paper clip, or wad of paper.

Since autism was first added to the psychiatric literature about fifty years ago, there have been numerous studies and theories about its causes. Researchers still have not reached agreement regarding its specific causes. First, it must be recognised that autism is a set of a wide variety of symptoms and may have many causes. This concept is not unusual in medicine. For instance, the set of symptoms that we perceive of as a “cold” can be caused by literally hundreds of different viruses, bacteria, and even our own immune system.

Although some remain convinced that certain vaccines, vaccine preservatives or medications taken to treat side effects of vaccines that may cause autism, conventional wisdom continues to agree that immunisations do not cause autism. Autism is thought to be a biological disorder. In the past, some researchers had suggested that autism was the result of poor attachment skills on the part of the mother. This belief has caused a great deal of unnecessary pain and guilt on the part of the parents of children with autism, when in fact, the inability of the individual with autism to interact appropriately is one of the key symptoms of this developmental disorder.

In support of a biological theory of autism, several known neurological disorders are associated with autistic features. Autism is one of the symptoms of these disorders. These conditions include:

- Tuberous sclerosis and the fragile X syndrome (inherited disorder)
- Cerebral dysgenesis (abnormal development of the brain)
- Rett’s syndrome (a mutation of a single gene)
- Some of the inborn errors of metabolism (biochemical defects)

Autism, in short, seems to be the result or “final common pathway” of numerous disorders that affect brain development. Brain studies have also demonstrated that persons with autism tend to have a number of abnormalities in brain size. In general, however, when clinicians make the diagnosis of autism, they are excluding the known causes of autistic behaviours. However, as the knowledge of conditions that cause autism advances, fewer and fewer cases will likely be thought of as being “pure” autism and more individuals will be identified as having autism due to specific causes.

There is a strong association between autism and seizures. This association works in two ways. First, many patients (20% to 30%) with autism develop seizures. Second, patients with seizures, which are probably due to other causes, may develop autistic-like behaviours. One special and often misunderstood association between autism and seizures is the Landau-Kleffner Syndrome. This syndrome is also known as acquired epileptic aphasia. Some children with epilepsy develop a sudden loss of language skills—especially receptive language (the ability to understand). Many often also develop the symptoms of autism.

Certainly, disorders such as the fragile X syndrome and tuberous sclerosis, which are both associated with autism, are inherited. There are many families with more than one child with autism where the autism is not clearly due to another cause. Recent studies have found that the gene for at least one kind of familial autism may be on chromosome 13. In some families, autism seems to be passed from generation to generation. In other families, autism is not found in prior generations but it affects siblings. The results of this research make it clear that at least one “autism gene” will eventually be found.

However, the majority of individuals with autism do not have a strong family history,

which supports the premise, that environment or a combination of environmental and genetic factors contribute to the development of autism. In this context, environmental is meant to indicate any non-genetic factor, including infections, toxins, nutrition, or others.

4.2.2 Rett's Disorder

Rett's disorder is an X-linked dominant neurological disorder that affects only girls and is one of the most common causes of mental retardation in females. Girls with the syndrome show normal development during the first 6-18 months of life followed first by a period of stagnation and then by rapid regression in motor and language skills. The hallmark of Rett's syndrome is the loss of purposeful hand use and its replacement with stereotyped hand wringing. Screaming fits and inconsolable crying are common.

Other key features include loss of speech, behaviour reminiscent of autism, panic-like attacks, grinding of teeth, rigid gait, tremors, intermittent hyperventilation and microcephaly (small head). Seizures occur in about half of cases. The girls typically survive into adulthood, but are at risk of sudden unexplained death. Rett's syndrome is due to mutation in the MECP2 gene (methyl-CpG-binding protein-2) on chromosome Xq28. The vast majority of cases are sporadic and result from a new mutation in the girl with Rett's syndrome or inheritance of the mutation from a parent who has somatic or germline mosaicism with the MECP2 mutation in only some of their cells. Atypical Rett's syndrome with MECP2 mutations has been found in patients previously diagnosed with autism, mild learning disability, and mental retardation with spasticity or tremor. Rett's syndrome is a uniform and striking, progressive neurologic developmental disorder and one of the most common causes of mental retardation in females.

After normal development up to the age of 6 to 18 months, developmental stagnation occurs followed by rapid deterioration of high brain functions. Within 1 to 2 years, this deterioration progresses to loss of speech, severe dementia, behaviour reminiscent of autism, stereotypic hand-wringing movements, loss of purposeful use of the hands, jerky ataxia (wobbliness) of the trunk, intermittent hyperventilation, and microcephaly (small head). Thereafter, a period of apparent stability lasts for decades. But additional neurological abnormalities intervene insidiously. These abnormalities include what is called spastic paraparesis (paralysis and spasticity of the legs) and epilepsy (seizures). A striking deceleration of growth has been found across all measurements in most girls with Rett's syndrome who end up with short stature and microcephaly. The mortality (death) rate among children with Rett's syndrome is increased (1.2% per year). A high proportion (26%) of the deaths is sudden and associated with a heart conduction problem, namely an abnormally prolonged QT interval on the electrocardiogram.

4.2.3 Asperger Syndrome

Asperger syndrome is one of the neuro-developmental disorders that have effects on an individual's behaviour, use of language and communication, and pattern of social interactions. Asperger disorder is characterised as one of the autism spectrum disorders, although Asperger syndrome is considered to be at the milder, or higher-functioning, range of this spectrum. There is still some controversy as to whether Asperger syndrome should be regarded as a separate clinical entity or it simply represents a high-functioning form of autism. People with Asperger syndrome have normal to above-average intelligence but typically have difficulties with social interactions and

often have pervasive, absorbing interests in special topics. Asperger syndrome is 5 times more common in boys than in girls. Asperger syndrome has been estimated to affect 2.5 out of every 1000 children, based upon the total number of children with autistic disorders.

Asperger syndrome is named for Dr. Hans Asperger, an Austrian pediatrician, who first described the condition in 1944. Dr. Asperger described four boys who showed “a lack of empathy, little ability to form friendships, one-sided conversation, intense absorption in a special interest, and clumsy movements.” Because of their obsessive interests in and knowledge of particular subjects, he termed the boys “little professors.” The American Psychiatric Association (APA) recognised Asperger disorder as a specific entity and published diagnostic criteria in the Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) in 1994.

Social-behavioural symptoms of Asperger syndrome can begin as early as infancy. Some of the symptoms that may be present are:

- 1) Lack of social awareness
- 2) Lack of interest in socialising/making friends
- 3) Difficulty making and sustaining friendships
- 4) Inability to infer the thoughts, feelings, or emotions of others
- 5) Either gazing too intently or avoiding eye contact
- 6) Lack of changing facial expression, or use of exaggerated facial expressions
- 7) Lack of use or comprehension of gestures
- 8) Failure to respect interpersonal boundaries
- 9) Unusually sensitive to noises, touch, smell, tastes, or visual stimuli
- 10) Inflexibility and over-adherence to or dependence on routines
- 11) Stereotypes and repetitive motor patterns such as hand flapping or arm waving.

Many experts in the field stress the particular gifts and positive aspects of Asperger syndrome and consider it to represent a different, but not necessarily defective, way of thinking. Positive characteristics of people with Asperger syndrome have been described as beneficial in many professions that include:

- The increased ability to focus on details
- The capacity to persevere in specific interests without being swayed by others' opinions
- The ability to work independently
- The recognition of patterns that may be missed by others
- Intensity
- An original way of thinking.

4.2.4 Childhood Disintegrative Disorder (CDD)

Childhood disintegrative disorder, also known as Heller's syndrome, is a condition in which children develop normally until ages 2 to 4, but then demonstrate a severe

loss of social, communication and other skills. Childhood disintegrative disorder is very much like autism. Both are among the group of disorders known as pervasive developmental disorders, or autism spectrum disorders. Both involve normal development followed by significant loss of language, social, play and motor skills. However, childhood disintegrative disorder typically occurs later than autism and involves a more dramatic loss of skills. In addition, childhood disintegrative disorder is far less common than autism. Loss of developmental milestones may occur abruptly over the course of days to weeks or gradually over an extended period. Children with childhood disintegrative disorder typically show the following signs and symptoms:

Dramatic loss of previously acquired skills in two or more of the following areas:

- Language, including a severe decline in the ability to speak and have a conversation
- Social skills, including significant difficulty relating to and interacting with others
- Play, including a loss of interest in imaginary play and in a variety of games and activities
- Motor skills, including a dramatic decline in the ability to walk, climb, grasp objects and other movements
- Bowel or bladder control, including frequent accidents in a child who was previously toilet-trained

Lack of normal function or impairment also occurs in at least two of the following three areas:

- Social interaction
- Communication
- Repetitive behaviour & interest patterns

There is no known cause of childhood disintegrative disorder. There is likely a genetic basis for autism spectrum disorders. The theory is that an abnormal gene is switched on in the early stages of development, before birth, and that this gene affects other genes that coordinate a child's brain development. Environmental exposure may contribute to these effects, such as to a toxin or infection. It is also possible that an autoimmune response play a role in the development of childhood disintegrative disorder. In an autoimmune response, body's immune system perceives normal body components as foreign and attacks them. Childhood disintegrative disorder often occurs along with other conditions, including:

- Tuberous sclerosis: In this condition, noncancerous (benign) tumours grow in the brain.
- Lipid storage diseases: In this rare group of inherited metabolic disorders, a toxic build up of excess fats (lipids) occurs in the brain and nervous system.
- Sub acute sclerosis panencephalitis: This chronic infection of the brain is caused by a form of the measles virus that results in brain inflammation and the death of nerve cells.

It is unknown whether these conditions play a part in triggering childhood disintegrative disorder or share genetic or environmental risk factors.

4.2.5 Pervasive Developmental Disorder not Otherwise Specified (PDD-NOS)

Pervasive developmental disorder not otherwise specified (PDD-NOS), also called atypical autism, is a neurobiological disorder characterised by impairment in ability to interact with others and by abnormalities in either communication, or behaviour patterns and interests. PDD-NOS is described as atypical autism, because individuals with the disorder exhibit some but not all of the same symptoms associated with autism (sometimes called classic autism). Likewise, “not otherwise specified,” indicates that an individual’s symptoms are nonspecific, meaning that they differ from symptoms characteristic of other pervasive developmental disorders, such as Rett’s syndrome and childhood disintegrative disorder.

PDD-NOS affects boys four times more often than girls. The overall prevalence of the disorder remains unclear, because of the varying clinical definitions used for diagnosis. Many children who have only several symptoms of an autism like condition, which prevents a definitive diagnosis of autism, are often diagnosed instead with PDD-NOS. Symptoms associated with PDD-NOS appear after age of three and the pattern in which symptoms manifest and the behaviours displayed by affected children vary widely. Most children with the disorder appear to develop normally in the first several years of life and then experience an unusual delay in the development of social abilities. It is usually at this point in the child’s development when other features of PDD-NOS become apparent. These features may include gaze avoidance, lack of expressive facial responses, irregularities in speech, repetitive and obsessive behaviours, and delayed development of motor skills. The incidence of severe intellectual disability in PDD-NOS patients is low relative to other pervasive developmental disorders.

Self Assessment Questions

- 1) Explain meaning and symptoms of pervasive developmental disorders.

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- 2) Describe the symptoms and causes of autism.

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- 3) Give an account of Rett’s Disorder.

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4) Explain the symptoms of Asperger Syndrome.

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5) Present a clinical picture of Childhood Disintegrative Disorder (CDD).

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6) Present an account of Pervasive Developmental Disorder not otherwise Specified (PDD-NOS).

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Although the precise cause of PDD-NOS is unknown, abnormalities in certain structures and in neuronal pathways in the brain have been implicated. Researchers also suspect underlying genetic defects may be involved. Treatment for PDD-NOS consists primarily of behavioural therapy, though some children may require the administration of medications to stabilize mood or behaviour.

4.3 ATTENTION DEFICIT HYPERACTIVE DISORDERS (ADHD)

Attention deficit hyperactivity disorder (ADHD) is one of the most common childhood disorders and can continue through adolescence and adulthood. Symptoms include difficulty staying focused and paying attention, difficulty controlling behaviour, and hyperactivity (over-activity). Inattention, hyperactivity and impulsivity are the key behaviours of ADHD. It is normal for all children to be inattentive, hyperactive or impulsive sometimes, but for children with ADHD, these behaviours are more severe and occur more often. To be diagnosed with the disorder, a child must have symptoms for six or more months and to a degree that is greater than other children of the same age. Some of the signs of ADHD are present in many kids. Others are rarely present unless people have disabling ADHD.

a) **Inattention:** Six or more of the following symptoms of inattention must persist for at least six months to a degree that is maladaptive and inconsistent with the developmental level.

- Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
- Often has difficulty sustaining attention in tasks or play activities

- Often does not seem to listen when spoken to directly
- Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to failure to understand instructions)
- Often have difficulty organising tasks and activities
- Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
- Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
- Is often easily distracted by extraneous stimuli
- Is often forgetful in daily activities

Hyperactivity-impulsiveness: Six or more of the following symptoms must persist for at least 6 months to a degree that is maladaptive and inconsistent with the developmental level.

- Often fidgets with hands or feet or squirms in seat
- Often leaves seat in classroom or in other situations in which remaining seated is expected
- Often runs about or climbs excessively in situations in which it is inappropriate (in adolescents, this may be limited to subjective feelings of restlessness)
- Often has difficulty playing or engaging in leisure activities quietly
- Is often “on the go” or often acts as if “driven by a motor”
- Often talks excessively
- Often blurts out answers before questions have been completed
- Often has difficulty awaiting turn
- 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 and at home)
- d) There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

There are three kinds of ADHD: ADHD without hyperactivity (symptoms and signs of attention deficit only), ADHD hyperactive-impulse type (symptoms and signs of hyperactivity-impulsiveness only) and combined type (symptoms and signs of both attention deficit and hyperactivity-impulsiveness). However, ADHD is not just about being impulsive, hyperactive and inattentive. Recent studies have shown that people with ADHD have some other interesting problems. These include:

Clumsiness

Children with ADHD tend to fall down more, tip over more things accidentally, and have worse fine motor skills than other children. While some of this is related to their

hyperactivity, a good part of it is not. This is partly the reason that people with ADHD have more accidents, have poorer handwriting, and always seem to be spilling things. This poor coordination predicts a poor outcome as adults. Those children who have marked coordination problems and ADHD are much more likely to have trouble with the law, reading problems, work difficulties and substance abuse problems as adults.

Problem in Time perception

To be coordinated and get things done, we need to have a stable internal clock. People with ADHD have much more difficulty figuring out how much time has really passed either in the short term (while trying to coordinate a movement) or in the long term (trying to decide how fast to work to get something done in a certain time frame). This inability to judge time does improve with medication.

Causes of ADHD

Like many other illnesses, ADHD probably results from a combination of factors. In addition to genetics, researchers are looking at possible environmental factors, and are studying how brain injuries, nutrition, and the social environment might contribute to ADHD.

Genes: Inherited from our parents, genes are the “blueprints” for who we are. Results from several international studies of twins show that ADHD often runs in families. Researchers are looking at several genes that may make people more likely to develop the disorder (Faraone et al, 2005; Khan, S. A., & Faraone, S. V., 2006). Knowing the genes involved may one day help researchers prevent the disorder before symptoms develop. Learning about specific genes could also lead to better treatments. Children with ADHD who carry a particular version of a certain gene have thinner brain tissue in the areas of the brain associated with attention (Shaw et al, 2007).

Environmental factors: Studies suggest a potential link between cigarette smoking and alcohol use during pregnancy and ADHD in children.^{5,6} In addition, preschoolers who are exposed to high levels of lead, which can sometimes be found in plumbing fixtures or paint in old buildings, may have a higher risk of developing ADHD (Braun et al, 2006).

Brain injuries: Children who have suffered a brain injury may show some behaviour similar to those of ADHD. However, only a small percentage of children with ADHD have suffered a traumatic brain injury. Over the last few years, researchers have looked at the brain in people with ADHD and have found some clear abnormalities. MRI scanners take a very detailed picture of the brain in cross section. They show that parts of the base of the brain associated with attention are smaller on the right in people with ADHD. The part of the brain that connects the left and right front of the brain has also been found to be smaller in a couple of studies using MRI. When researchers look at how much work different parts of the brain are doing, they have found decreased activity in the front parts of the brain in ADHD. Special tests can show that the brain is not as efficient in ADHD when doing certain tasks and rather than being able to use a small part of the brain, a larger part must be used.

Sugar: The idea that refined sugar causes ADHD or makes symptoms worse is popular, but more research discounts this theory than supports it. In one study, researchers gave children foods containing either sugar or a sugar substitute every other day. The children who received sugar showed no different behaviour or learning

capabilities than those who received the sugar substitute (Wolraich et al, 1985). Another study in which children were given higher than average amounts of sugar or sugar substitutes showed similar results.

In another study, children who were considered sugar-sensitive by their mothers were given the sugar substitute aspartame, also known as Nutrasweet. Although all the children got aspartame, half their mothers were told their children were given sugar, and the other half were told their children were given aspartame. The mothers who thought their children had gotten sugar rated them as more hyperactive than the other children and were more critical of their behaviour, compared to mothers who thought their children received aspartame (Hoover, D. W., & Milich, R., 1994)

Food additives: Recent British research indicates a possible link between consumption of certain food additives like artificial colours or preservatives, and an increase in activity (McCann et al, 2007). Research is under way to confirm the findings and to learn more about how food additives may affect hyperactivity.

4.4 OTHER CHILDHOOD PSYCHOPATHOLOGIES

4.4.1 Oppositional Defiant Disorder

The American Psychiatric Association's *Diagnostic and Statistical Manual, Fourth Edition (DSM IV)*, defines oppositional defiant disorder (ODD) as a recurrent pattern of negativistic, defiant, disobedient, and hostile behaviour toward authority figures that persists for at least 6 months. Behaviours included in the definition include the following: losing one's temper; arguing with adults; actively defying requests; refusing to follow rules; deliberately annoying other people; blaming others for one's own mistakes or misbehaviour; and being touchy, easily annoyed or angered, resentful, spiteful, or vindictive. When ODD is present with ADHD, depression, tourette's, anxiety disorders, or other neuropsychiatric disorders, it makes life with that child far more difficult. For Example, ADHD plus ODD is much worse than ADHD alone, often enough to make people seek treatment.

ODD is usually diagnosed when a child has a persistent or consistent pattern of disobedience and hostility toward parents, teachers, or other adults. The primary behavioural difficulty is the consistent pattern of refusing to follow commands or requests by adults. Children with ODD are often easily annoyed; they repeatedly lose their temper, argue with adults, refuse to comply with rules and directions, and blame others for their mistakes. Stubbornness and testing limits are common, even in early childhood.

The criteria for ODD are met only when the problem behaviours occur more frequently in the child than in other children of the same age and developmental level. These behaviours cause significant difficulties with family and friends, and the oppositional behaviours are the same both at home and in school. Sometimes, ODD may be a precursor of a conduct disorder. ODD is not diagnosed if the problematic behaviours occur exclusively with a mood or psychotic disorder.

4.4.2 Conduct Disorder

Conduct disorder refers to a group of behavioural and emotional problems in youngsters. Children and adolescents with this disorder have great difficulty following rules and behaving in a socially acceptable way. They are often viewed by other children, adults and social agencies as "bad" or delinquent, rather than mentally ill. Many factors may contribute to a child developing conduct disorder, including brain

damage, child abuse, genetic vulnerability, school failure, and traumatic life experiences. Children or adolescents with conduct disorder may exhibit aggression to people and animals, destruction of property, deceitfulness, lying, or stealing and serious violations of rules.

Children who exhibit these behaviours should receive a comprehensive evaluation. Many children with a conduct disorder may have coexisting conditions such as mood disorders, anxiety, PTSD, substance abuse, ADHD, learning problems, or thought disorders, which can also be treated. Research shows that youngsters with conduct disorder are likely to have ongoing problems if they and their families do not receive early and comprehensive treatment. Without treatment, many youngsters with conduct disorder are unable to adapt to the demands of adulthood and continue to have problems with relationships and holding a job. They often break laws or behave in an antisocial manner.

4.4.3 Anxiety Disorders: Separation Anxiety Disorder

According to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* separation anxiety is a fairly common anxiety disorder that consists of excessive anxiety beyond that expected for the child's developmental level. It is related to separation or impending separation from the attachment figure (e.g., primary caretaker, close family member) occurring in children younger than 18 years and lasting for at least 4 weeks. Features include clinically significant symptoms of anxiety (severe distress or impairment of function), unrealistic worries about the safety of loved ones, reluctance to fall asleep without being near the primary attachment figure, excessive distress (tantrums) when separation is imminent, nightmares with separation-related themes and homesickness. In addition, physical/somatic symptoms (especially frequent in older children and adolescents), such as dizziness, light headedness, nausea, stomach ache, cramps, vomiting, muscle aches, or palpitations, may be present and problematic, causing the child and family to seek medical treatment because of impaired ability to attend school or meet social responsibilities.

4.4.4 Tick Disorders

A tic is a problem in which a part of the body moves repeatedly, quickly, suddenly and uncontrollably. Tics can occur in any body part, such as the face, shoulders, hands or legs. They can be stopped voluntarily for brief periods. Sounds that are made involuntarily (such as throat clearing) are called vocal tics. Most tics are mild and hardly noticeable. However, in some cases they are frequent and severe, and can affect many areas of a child's life.

The most common tic disorder is called "transient tic disorder" and may affect up to 10 percent of children during the early school years. Teachers or others may notice the tics and wonder if the child is under stress or "nervous." Transient tics go away by themselves. Some may get worse with anxiety, tiredness, and some medications. Some tics do not go away. Tics which last one year or more are called "chronic tics." Chronic tics affect less than one percent of children and may be related to a special, more unusual tic disorder called Tourette's Disorder. Children with Tourette's Disorder have both body and vocal tics (throat clearing). Some tics disappear by early adulthood, and some continue. Children with Tourette's Disorder may also have problems with attention, and learning disabilities. They may act impulsively, and/or develop obsessions and compulsions. Sometimes people with Tourette's Disorder may blurt out obscene words, insult others, or make obscene gestures or movements. They cannot control these sounds and movements. Punishment

by parents, teasing by classmates, and scolding by teachers will not help the child to control the tics but will hurt the child's self-esteem and increase their distress.

Through a comprehensive evaluation, often involving paediatrician and/or neurologic consultation, a child and adolescent psychiatrist can determine whether a youngster has Tourette's Disorder or another tic disorder. Treatment for the child with a tic disorder may include medication to help control the symptoms. The child and adolescent psychiatrist can also advise the family about how to provide emotional support and the appropriate educational environment for the youngster.

4.4.5 Childhood Depression

Childhood depression is different from the normal mood shifts and everyday emotions that occur as a child develops. Just because a child seems depressed or sad, does not necessarily mean they have depression. If these symptoms become persistent, disruptive and interfere with social activities, interests, schoolwork and family life, it may indicate that he or she is suffering from the medical condition depression.

The symptoms of depression in children vary. Early medical studies focused on "masked" depression, where a child's depressed mood was evidenced by acting out or angry behaviour. While this does occur, particularly in younger children, many children display sadness or low mood similar to adults who are depressed. The primary symptoms of depression revolve around sadness, a feeling of hopelessness, and mood changes and may include:

- Irritability or anger
- Continuous feelings of sadness, hopelessness
- Social withdrawal
- Increased sensitivity to rejection
- Changes in appetite (either increased or decreased)
- Changes in sleep (sleeplessness or excessive sleep)
- Vocal outbursts or crying
- Difficulty concentrating
- Fatigue and low energy
- Physical complaints (such as stomach aches, headaches) that do not respond to treatment
- Reduced ability to function during events and activities at home or with friends, in school, extracurricular activities, and in other hobbies or interests
- Feelings of worthlessness or guilt
- Impaired thinking or concentration
- Thoughts of death or suicide

Not all children have all of these symptoms. In fact, most will display different symptoms at different times and in different settings. Although some children may continue to function reasonably well, most kids with significant depression will suffer a noticeable change in social activities, loss of interest in school and poor academic performance, or a change in appearance. Children may also begin using drugs or alcohol, especially if they are over the age of 12.

4.5 MENTAL RETARDATION

Mental retardation is a developmental disability that first appears in children under the age of 18. It is defined as an intellectual functioning level (as measured by standard tests for intelligence quotient) that is well below average and significant limitations in daily living skills (adaptive functioning). Mental retardation begins in childhood or adolescence before the age of 18. In most cases, it persists throughout adulthood. A diagnosis of mental retardation is made if an individual has an intellectual functioning level well below average and significant limitations in two or more adaptive skill areas. Intellectual functioning level is defined by standardised tests that measure the ability to reason in terms of mental age (intelligence quotient or IQ). Mental retardation is defined as IQ score below 70-75. Adaptive skills are the skills needed for daily life. Such skills include the ability to produce and understand language (communication); home-living skills; use of community resources; health, safety, leisure, self-care, and social skills; self-direction; functional academic skills (reading, writing, and arithmetic); and work skills.

In general, mentally retarded children reach developmental milestones such as walking and talking much later than the general population. Symptoms of mental retardation may appear at birth or later in childhood. Time of onset depends on the suspected cause of the disability. Some cases of mild mental retardation are not diagnosed before the child enters preschool. These children typically have difficulties with social, communication, and functional academic skills. Children who have a neurological disorder or illness such as encephalitis or meningitis may suddenly show signs of cognitive impairment and adaptive difficulties.

Mental retardation varies in severity. *The Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (*DSM-IV*) is the diagnostic standard for mental healthcare professionals in the United States. The *DSM-IV* classifies four different degrees of mental retardation: *mild*, *moderate*, *severe*, and *profound*. These categories are based on the functioning level of the individual.

- i) **Mild mental retardation:** Approximately 85% of the mentally retarded population is in the mildly retarded category. Their IQ score ranges from 50-75, and they can often acquire academic skills up to the 6th grade level. They can become self-sufficient and in some cases live independently, with community and social support.
- ii) **Moderate mental retardation:** About 10% of the mentally retarded population is considered moderately retarded. Moderately retarded individuals have IQ scores ranging from 35-55. They can carry out work and self-care tasks with moderate supervision. They typically acquire communication skills in childhood and are able to live and function successfully within the community in a supervised environment such as a group home.
- iii) **Severe mental retardation:** About 3-4% of the mentally retarded population is severely retarded. Severely retarded individuals have IQ scores of 20-40. They may master very basic self-care skills and some communication skills. Many severely retarded individuals are able to live in a group home.
- iv) **Profound mental retardation:** Only 1-2% of the mentally retarded population is classified as profoundly retarded. Profoundly retarded individuals have IQ scores under 20-25. They may be able to develop basic self-care and communication skills with appropriate support and training. Their retardation is often caused by an accompanying neurological disorder. The profoundly retarded need a high level of structure and supervision.

The American Association on Mental Retardation (AAMR) has developed another widely accepted diagnostic classification system for mental retardation. The AAMR classification system focuses on the capabilities of the retarded individual rather than on the limitations. The categories describe the level of support required. They are *intermittent support*, *limited support*, *extensive support*, and *pervasive support*. To some extent, the AAMR classification mirrors the *DSM-IV* classification. Intermittent support, for example, is support needed only occasionally, perhaps during times of stress or crisis. It is the type of support typically required for most mildly retarded individuals. At the other end of the spectrum, pervasive support, or life-long, daily support for most adaptive areas, would be required for profoundly retarded individuals.

Causes of Mental Retardation

Low IQ scores and limitations in adaptive skills are the hallmarks of mental retardation. Aggression, self-injury, and mood disorders are sometimes associated with the disability. The severity of the symptoms and the age at which they first appear depend on the cause. Children who are mentally retarded reach developmental milestones significantly later than expected, if at all. If retardation is caused by chromosomal or other genetic disorders, it is often apparent from infancy. If retardation is caused by childhood illnesses or injuries, learning and adaptive skills that were once easy may suddenly become difficult or impossible to master.

In about 35% of cases, the cause of mental retardation cannot be found. Biological and environmental factors that can cause mental retardation include:

Genetics: About 5% of mental retardation is caused by hereditary factors. Mental retardation may be caused by an inherited abnormality of the genes, such as fragile X syndrome. Fragile X, a defect in the chromosome that determines sex, is the most common inherited cause of mental retardation. Single gene defects such as phenylketonuria (PKU) and other inborn errors of metabolism may also cause mental retardation if they are not found and treated early. An accident or mutation in genetic development may also cause retardation. Examples of such accidents are development of an extra chromosome 18 (trisomy 18) and Down syndrome. Down syndrome, also called mongolism or trisomy 21, is caused by an abnormality in the development of chromosome 21. It is the most common genetic cause of mental retardation.

Prenatal illnesses and infections: Fetal alcohol syndrome affects one in 600 children in the United States. It is caused by excessive alcohol intake in the first twelve weeks (trimester) of pregnancy. Some studies have shown that even moderate alcohol use during pregnancy may cause learning disabilities in children. Drug abuse and cigarette smoking during pregnancy have also been linked to mental retardation. Maternal infections and illnesses such as glandular disorders, rubella, toxoplasmosis, and cytomegalovirus infection may cause mental retardation. When the mother has high blood pressure (hypertension) or blood poisoning (toxemia), the flow of oxygen to the fetus may be reduced, causing brain damage and mental retardation.

Birth defects that cause physical deformities of the head, brain, and central nervous system frequently cause mental retardation. Neural tube defect, for example, is a birth defect in which the neural tube that forms the spinal cord does not close completely. This defect may cause children to develop an accumulation of cerebrospinal fluid on the brain (hydrocephalus). Hydrocephalus can cause learning impairment by putting pressure on the brain.

Childhood illnesses, infections and injuries: Hyperthyroidism, whooping cough,

chickenpox, measles and Hib disease (a bacterial infection) may cause mental retardation if they are not treated adequately. An infection of the membrane covering the brain (meningitis) or an inflammation of the brain itself (encephalitis) causes swelling that in turn may cause brain damage and mental retardation. Traumatic brain injury caused by a blow or a violent shake to the head may also cause brain damage and mental retardation in children.

Environmental factors: Ignored or neglected infants who are not provided the mental and physical stimulation required for normal development may suffer irreversible learning impairments. Children who live in poverty and suffer from malnutrition, unhealthy living conditions, and improper or inadequate medical care are at a higher risk. Exposure to lead can also cause mental retardation. Many children have developed lead poisoning by eating the flaking lead-based paint often found in older buildings.

Diagnosis: If mental retardation is suspected, a comprehensive physical examination and medical history should be done immediately to discover any organic cause of symptoms. Conditions such as hyperthyroidism and PKU are treatable. If these conditions are discovered early, the progression of retardation can be stopped and, in some cases, partially reversed. If a neurological cause such as brain injury is suspected, the child may be referred to a neurologist or neuropsychologist for testing.

A complete medical, family, social, and educational history is compiled from existing medical and school records (if applicable) and from interviews with parents. Children are given intelligence tests to measure their learning abilities and intellectual functioning. Such tests include the Stanford-Binet Intelligence Scale, the Wechsler Intelligence Scales, the Wechsler Preschool and Primary Scale of Intelligence, and the Kaufmann Assessment Battery for Children. For infants, the Bayley Scales of Infant Development may be used to assess motor, language, and problem-solving skills. Interviews with parents or other caregivers are used to assess the child's daily living, muscle control, communication, and social skills. The Woodcock-Johnson Scales of Independent Behaviour and the Vineland Adaptive Behaviour Scale (VABS) are frequently used to test these skills.

Self Assessment Questions

1) Present a clinical picture of Attention deficit hyperactivity disorder (ADHD).

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2) Describe oppositional defiant disorder.

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3) Give an account of conduct disorder.

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4) Explain the childhood anxiety disorders (separation anxiety disorder).

5) Describe the tick disorders and childhood depression.

6) Present an account of mental retardation.

4.6 LET US SUM UP

The term “pervasive development disorders,” also called PDDs, refers to a group of conditions that involve delays in the development of many basic skills, most notably the ability to socialise with others, to communicate, and to use imagination. Children with these conditions often are confused in their thinking and generally have problems understanding the world around them. PDDs include autism, Asperger’s syndrome, childhood disintegrative disorder, Rett’s syndrome and pervasive development disorder not otherwise specified (PDDNOS). Children with autism have problems with social interaction, pretend play, and communication. They also have a limited range of activities and interests. Many (nearly 75%) of children with autism also have some degree of mental retardation. Like children with autism, children with Asperger’s syndrome have difficulty with social interaction and communication, and have a narrow range of interests. However, children with Asperger’s have average or above average intelligence, and develop normally in the areas of language and cognition. Children with Asperger’s also have difficulty concentrating and may have poor coordination. Children childhood disintegrative disorder begin their development normally in all areas, physical and mental. At some point, usually between 2 and 10 years of age, a child with this illness loses many of the skills he or she has developed. In addition to the loss of social and language skills, a child with disintegrative disorder may lose control of other functions, including bowel and bladder control. Children with Rett’s syndrome have the symptoms associated with a PDD and suffer problems with physical development. They generally suffer the loss of many motor or movement, skills, such as walking and use of their hands and develop poor coordination. Pervasive

development disorder not otherwise specified (PDDNOS) is used to refer to children who have significant problems with communication and play, and some difficulty interacting with others, but are too social to be considered autistic.

Attention deficit hyperactivity disorder (ADHD) is one of the most common childhood disorders and can continue through adolescence and adulthood. Symptoms include difficulty staying focused and paying attention, difficulty controlling behaviour, and hyperactivity (over-activity). Inattention, hyperactivity and impulsivity are the key behaviours of ADHD. It is normal for all children to be inattentive, hyperactive or impulsive sometimes, but for children with ADHD, these behaviours are more severe and occur more often. To be diagnosed with the disorder, a child must have symptoms for six or more months and to a degree that is greater than other children of the same age. Some of the signs of ADHD are present in many kids. Others are rarely present unless people have disabling ADHD. There are many disorders which are often found with/or without ADHD. These include oppositional defiant disorder, conduct disorder, anxiety disorders (separation anxiety disorder), tick disorders and childhood depression. Mental retardation is a developmental disability that first appears in children under the age of 18. It is defined as an intellectual functioning level (as measured by standard tests for intelligence quotient) that is well below average and significant limitations in daily living skills (adaptive functioning). Mental retardation begins in childhood or adolescence before the age of 18. In most cases, it persists throughout adulthood. A diagnosis of mental retardation is made if an individual has an intellectual functioning level well below average and significant limitations in two or more adaptive skill areas. Intellectual functioning level is defined by standardised tests that measure the ability to reason in terms of mental age (intelligence quotient or IQ). Mental retardation is defined as IQ score below 70-75. Adaptive skills are the skills needed for daily life. Such skills include the ability to produce and understand language (communication); home-living skills; use of community resources; health, safety, leisure, self-care, and social skills; self-direction; functional academic skills (reading, writing, and arithmetic); and work skills.

4.7 UNIT END QUESTIONS

- 1) Explain meaning and general symptoms of pervasive developmental disorders.
- 2) Describe the symptoms and causes of autism.
- 3) Describe Rett's disorder, Asperger syndrome, childhood disintegrative disorder (CDD) and pervasive developmental disorder not otherwise specified (PDD-NOS) as autism spectrum disorders.
- 4) Present a complete clinical picture of attention deficit hyperactivity disorder (ADHD).
- 5) Explain the disorders which are often found with/or without ADHD.
- 6) Elaborate the meaning, types and causes of mental retardation.

4.8 GLOSSARY

Pervasive Development Disorders	: Pervasive development disorders refer to a group of conditions that involve delays in the development of many basic skills.
Autism	: Autism is a developmental disorder characterised by impaired development in communication, social interaction and behaviour.

Rett's Disorder	: Rett's disorder includes the loss of purposeful hand use, screaming fits, inconsolable crying, loss of speech, behaviour reminiscent of autism, panic-like attacks, grinding of teeth, rigid gait, tremors, intermittent hyperventilation and microcephaly.
Asperger Syndrome	: Asperger syndrome is one of the neuro-developmental disorders that have effects on an individual's behaviour, use of language and communication and pattern of social interactions.
Childhood Disintegrative Disorder	: Childhood disintegrative disorder is a condition in which children develop normally until ages 2 to 4 but then demonstrate a severe loss of social, communication and other skills.
Attention Deficit Hyperactivity Disorder (ADHD)	: ADHD is one of the most common childhood disorders with the symptoms of difficulty in focusing and paying attention, difficulty in controlling behaviour and hyperactivity.
Oppositional Defiant Disorder (ODD)	: ODD is a recurrent pattern of negativistic, defiant, disobedient, and hostile behaviour toward authority figures.
Conduct Disorder	: Conduct disorder refers to a group of behavioural and emotional problems in children that include great difficulty in following rules and behaving in a socially acceptable way.
Separation Anxiety	: Separation anxiety is related to excessive anxiety of separation or impending separation from the attachment figure (e.g., primary caretaker, close family member).
Tick Disorders	: A tic is a problem in which a part of the body moves repeatedly, quickly, suddenly and uncontrollably.
Mental Retardation	: Mental retardation refers to an individual's intellectual functioning level well below average and significant limitations in two or more adaptive skill areas.

4.9 SUGGESTED READINGS

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