

UNDERSTANDING PSYCHOLOGICAL DISORDERS

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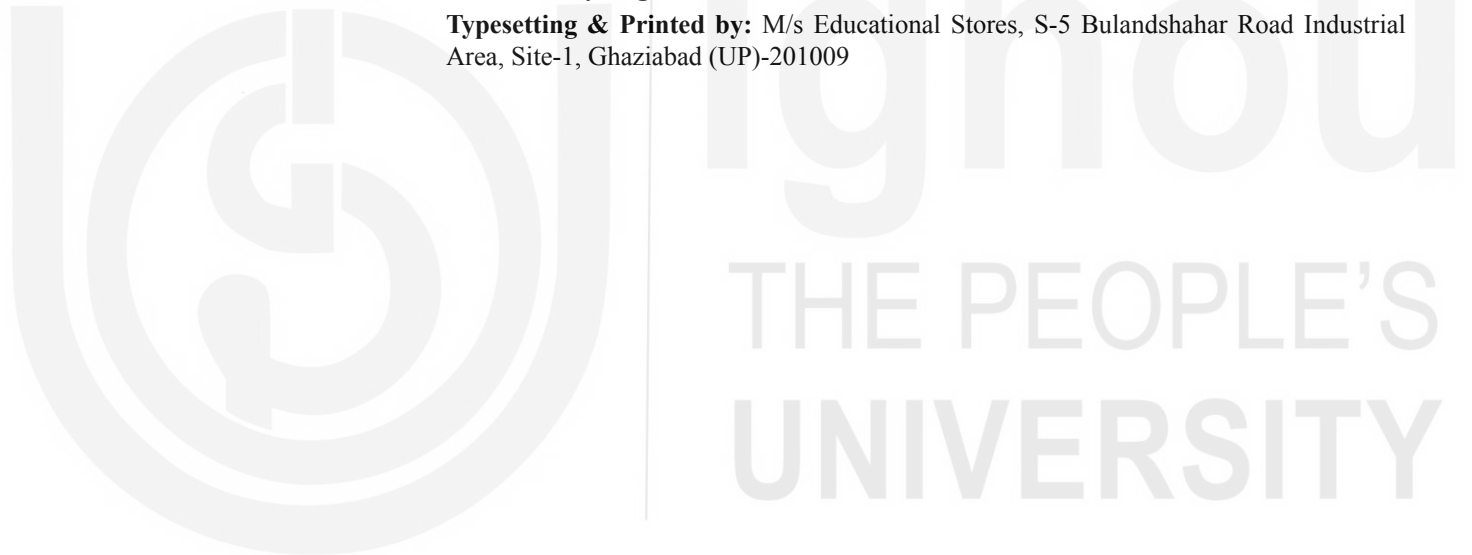
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BPCC 111: INTRODUCTION

BPCC 111: UNDERSTANDING PSYCHOLOGICAL DISORDERS

Course is in Semester V of BA Honours Psychology (BAPCH) programme. It is a Core Course of 6 credits (4 credits Theory and 2 credits Tutorial). The course will provide you an understanding of the field of abnormal psychology where you will learn about various psychological disorders. It will explain the concepts of normality and abnormality, and describe the theoretical perspectives of psychopathology. Further, it will acquaint you with the clinical features, etiology, nature and course of psychological disorders occurring in childhood developmental stage. You will also learn about various mild mental disorders and their treatment.

The specific objectives of the course are as follows:

Objectives

1. To introduce the concept of abnormality and classification of psychological disorders.
2. To acquaint learners with theoretical perspectives of psychological disorders.
3. To describe various psychological disorders in terms of etiology, symptoms and treatment.

Learning Outcome

At the end of this course, the learner will gain knowledge about the field of abnormal psychology. The learner will be able to explain the concepts of abnormality and normality, and when a behavior is called as deviating from the norm. The learner will gain a historical perspective of psychological disorders and know about the modern classification systems of psychopathology. The learner will also know about the assessment procedure used in psychopathology. Further, the learner will gain knowledge about various psychological disorders in terms of their symptoms, diagnostic features, causal factors, and treatment approaches.

Introduction

BPCC 111 consists of three Blocks and a total of 12 Units which you need to study and complete during the six months duration of your fifth semester. You will have continuous evaluation through assignment and a Term-End examination. Assignments are available on the IGNOU website. You can download the assignments on www.ignou.ac.in > student support > downloads > assignments. Refer to the instructional guidelines on the assignment for your assignment preparation and submission. You can also refer to the previous year question papers available under downloads to prepare for your term-end examination (TEE).

You will need to go through the course material in this book presented in different Blocks and Units to do your assignments and prepare successfully for the exam. Each Unit is like a chapter written in a structured way. It contains Self Assessment questions (SAQs) in between the sections in the Unit so that you can check your progress and go back to the content for more clarification. This will help make your learning better. Further, there

are Unit End questions also at the end of the Unit that facilitates your overall understanding of the Unit. Key Words section highlights the key words in the Unit that will help you recall the main terms and concepts learned in the Unit. References section will help you refer to specific studies and articles to gain more understanding of a particular point discussed in the Unit. At the end of each Unit, you are also provided with suggested readings for your further understanding of the Unit. Thus, the various aspects of this Self Learning Material (SLM) are designed to help you learn better. These features also ensure that the teacher is built into the course materials to help minimize the gap or distance between the learner and the teacher.

IGNOU follows a multi-pronged approach to teaching and learning. Thus there are printed course materials, audio and video materials. The soft copies of the course materials are also available on the IGNOU website through *egyankosh*. Interaction between the teacher and learner is also facilitated through *Gyanvani* (interactive radio counseling), *Gyan darshan* (tele conference) and web conference. Gyanvani is available on FM (105.6 channel). Gyandarshan is a television channel, a must carry channel for all the cable operators. Information about Gyanvani and Gyan darshan monthly schedule is available on the IGNOU website. Webconferences and online sessions are also held from time to time by the Faculty of Discipline of Psychology and you will get the information about the same from your Regional centre. You can make use of all these features of learning at IGNOU to take your learning to a new higher level and make it a truly enriching experience.

BLOCK I PSYCHOLOGICAL DISORDERS: AN INTRODUCTION

Block I –Psychological Disorders: An Introduction will introduce you to the field of abnormal psychology where you will learn about the meaning, classification, theoretical explanation, and assessment of psychological disorders. *The Block consists of four Units.*

Unit 1 Introduction to Psychological Disorders

It defines the concept of abnormality and normality, and explains how do we define a psychological disorder. The historical perspective as well as the modern classification approach to psychological disorders are described.

Unit 2 Theoretical Perspectives on Psychopathology I

It focuses on four key theoretical perspectives to explain psychopathology such as biological, psychodynamic, behavioural, and cognitive-behavioural. Main concepts and principles in each of these approaches are described and explained in relation to psychological disorders.

Unit 3 Theoretical Perspectives on Psychopathology II

This Unit describes four more theoretical perspectives on psychopathology, namely humanistic, existential, familial and cultural, and biopsychosocial. Their key concepts and application to understand abnormal behavior are explained.

BLOCK II DISORDERS OF CHILDHOOD

BLOCK II – Disorders of Childhood focuses on the disorders commonly occurring during childhood stage of life. *The Block consists of three Units.*

Unit 5 Common Childhood Disorders

The Unit focuses on four common disorders in childhood such as childhood depression including suicidal behavior, oppositional defiant disorder, and conduct disorder. Their features, causal factors and intervention are described.

Unit 6 Autism Spectrum Disorder and Attention Deficit Hyperactivity Disorder

It explains two significant disorders in childhood that impacts the child and the family members. The Unit discusses their clinical features, etiology and intervention measures used.

Unit 7 Intellectual Disability and Specific Learning Disorder

This Unit describes two more important childhood disorders, namely intellectual disability and specific learning disorder. Diagnostic criteria, etiology and intervention measures for these developmental disorders are described.

BLOCK III MENTAL DISORDERS - I

BLOCK III – Mental Disorders - I elaborates on five important categories of psychological disorders that can affect human functioning and personal-social interaction. They are discussed in detail with regard to their symptoms, causes and treatment. *The Block consists of five Units.*

Unit 8 Anxiety Disorders

The Unit describes anxiety disorders such as phobia, panic disorder and generalized anxiety disorder and highlights their symptoms, causes and treatment.

Unit 9 Obsessive Compulsive and Related Disorders

In this Unit, you learn about obsessive compulsive disorder and body dysmorphic disorder. The clinical symptoms of each, causal factors and treatment measures are described for the disorders.

Unit 10 Dissociative Disorders and Somatic Symptom Disorders

This Unit describes somatic symptom disorder, illness anxiety disorder, conversion disorder and factitious disorder. Further, nature, etiology, and treatment for dissociative disorders are also elaborated upon.

Unit 11 Feeding and Eating Disorders

This Unit focuses on two categories of eating disorders such as feeding disorder which includes pica, rumination disorder etc., and eating disorders including anorexia nervosa, bulimia nervosa, and binge eating disorder. Their clinical symptoms, etiology and treatment are described.

Unit 12 Stress, Trauma and Psychopathology

It discusses the concept of stress and trauma, and explains how severe distress in traumatic events can lead to post traumatic stress disorder. Symptoms, etiology and therapeutic techniques are described to deal with these.

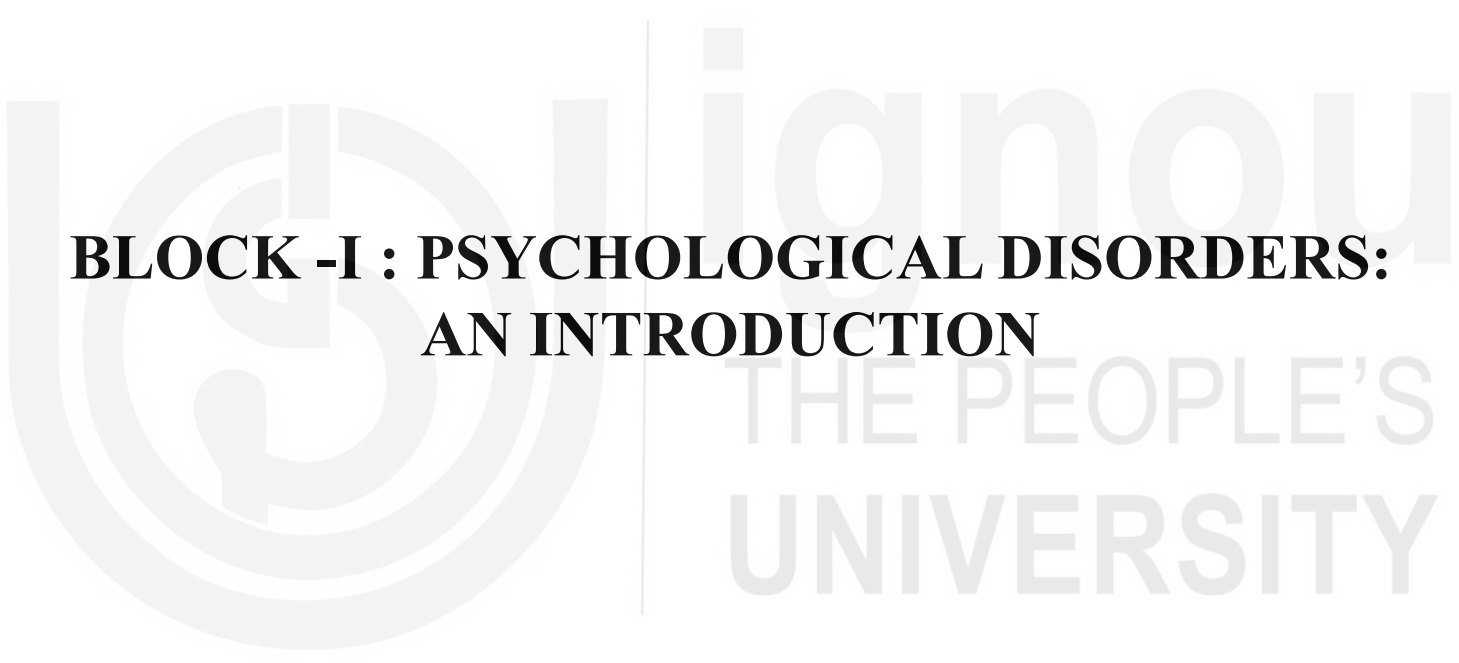
TUTORIAL ACTIVITY

As you know, this course BPCC 111 is of 6 credits consisting of 4 credits Theory and 2 credits Tutorial. The tutorial activity is included in your assignment booklet of the course which is available on the IGNOU website under Students zone. The tutorial activity will be evaluated by your academic counselor along with other assignment questions. Hence you need to write the Tutorial activity under a separate heading in the Assignment report only.

Tutorial will consist of different activities. It can be application-oriented activities based on the concepts learned in the Theory component. It can be in the form of a survey, case study, interview or group discussion. You have to do it on a specific sample as mentioned in the activity given and then write a report on it. The data can also be collected and analyzed qualitatively. Findings need to be discussed in the light of the theoretical inputs.

Further, tutorial can also be a review-based activity. It can be based on online articles/ videos. Whatever the activities are given in the tutorial, specific instructions to carry out these activities and the format for writing it will be given in the Assignment booklet under tutorial. The tutorial activity report will be a handwritten file.

Hence please refer to the Assignment booklet for BPCC 111 course uploaded under Students zone on the IGNOU website for the specific tutorial activities to be done for your session.



BLOCK -I : PSYCHOLOGICAL DISORDERS: AN INTRODUCTION

UNIT 1: INTRODUCTION TO PSYCHOLOGICAL DISORDERS*

Structure

- 1.1 Learning Objectives
- 1.2 Introduction
- 1.3 Concept of Abnormality and Normality
- 1.4 Historical Perspective of Psychological Disorders
- 1.5 Contemporary Perspectives of Psychological Disorders
- 1.6 Classification of Psychological Disorders
 - 1.6.1 Benefits of a Classification System
 - 1.6.2 Challenges of a Classification System
 - 1.6.3 The Two Classification Systems: DSM and ICD
- 1.7 Evolution of DSM: DSM-I to DSM-5
 - 1.7.1 Criticisms of DSM IV-TR
- 1.8 DSM-5
- 1.9 ICD
- 1.10 Let Us Sum Up
- 1.11 Key Words
- 1.12 References
- 1.13 Suggested Readings

1.1 LEARNING OBJECTIVES

After studying this Unit, you would be able to,

- *Explain the concept of abnormality and normality;*
- *Provide an account of the historical and contemporary perspectives of psychological disorders;*
- *Describe the benefits and challenges of the classification system; and*
- *Describe the DSM and ICD classification system.*

1.2 INTRODUCTION

Mrs. and Mr. 'A' live in a middle-income group flat in a colony in North Delhi. Mrs. A. is a housewife and Mr. A. is an accountant in a private firm. They have two children, a 17-year-old girl and a 13-year-old boy who study in a government aided school. The family neither interacts with neighbors nor are they welcomed in their house. They do not have friends as Mr. A. feels that neighbors and friends are not sincere, and they would ridicule Mr. A. and his family and divulge their family details to others.

* Dr. Gulgoona Jamal, Associate Professor, Department of Psychology, Zakir Husain Delhi College, University of Delhi, Delhi

Mr. A. returns home every night in an inebriated condition and abuses his wife and children. According to him, his life has been destroyed by marrying a worthless, ugly woman. Mrs. A. responds by crying, feeling helpless, and spends most of the time in her room complaining of various aches, pain, fatigue and lack of energy to do any work. She feels her life is worthless and often talks about killing herself. In fact, she had attempted to commit suicide by taking a heavy dose of sleeping pills but was saved due to timely intervention of her daughter. Lately, Mr. A. has been taking frequent leaves from office and behaved aggressively with his superior. The incidence invited a termination that was revoked only after the intervention of his boss who took a considerate view because of his children's pleading. He has been allowed to rejoin office after a stern warning of not repeating misbehavior in future.

Mrs. and Mr. A, both parents are not concerned about the falling grades and bullying behavior of their son at school. Several notices from school for parent-teacher meeting have been ignored, as Mrs. A is too 'ill' to go out of house and Mr. A. is too 'busy' to attend to a 'useless' matter. Daughter feels over-burdened as she must do the household work along with studying for her class 12th board exams. She complains of being overwhelmed by her mother's illness, father's callous and abusive behavior, domestic violence, and apathy of her brother. In the past 15 days, she has fainted twice, and the general physician has diagnosed her condition as malnourishment and stress.

As you read this story, does it raise several questions in your mind, such as:

- Is Mrs. and Mr. A.'s household normal?
- Do Mrs. and Mr. A. have a psychological disorder?
- Do Mrs. and Mr. A. require psychological intervention?
- Why does son show a bullying and a careless attitude?
- Is the daughter's response to her family situation normal?
- Is the whole family pathological?
- Can something be done to improve the family's functioning?

We may not have immediate answers to these questions, but we might have concluded that the nature of problems described here is 'psychological' and some or all members may be suffering from psychological disorder. The subfield of psychology that studies nature, causes, and maintenance of psychological disorders is known as 'abnormal psychology'. In this Unit, you will learn about the various terms and concepts related to abnormal psychology and also about how psychological disorders are classified.

1.3 CONCEPT OF ABNORMALITY AND NORMALITY

The term normal comes from the Latin word, '*norma*', a 17th century Latin word which literally means 'carpenter's square', or right angle, whereas the term, '*normalis*' derived from '*norma*' means 'made according to a carpenter's square.' In the 19th century Latin, '*norma*' meant rule or pattern and the term '*normalis*' meant conforming to rules, common standards,

regular, usual. So, since 19th century, the term '*normal*' in English derived from the Latin term, '*normalis*' means conforming to rules, standards, or a pattern. The term abnormal comes from a summation of two Latin terms *ab+norma*, where *ab* means *off, away from, deviate* and *norma* means *rule* so '*abnormalis*' in Latin means *deviating from a fixed rule or irregular*. So, its English derivative, *abnormal* means *not conforming to rule, deviating from a type, standard, contrary to system or law, irregular; unnatural* (<http://www.etymonline.com>).

Thus, normality implies confirming to rules, standards, patterns, whereas abnormality means deviation from rules, standards. When you say, "Oh! She is abnormal as she is behaving absurdly"; "Come on, it is normal for him to cry if he has lost his beloved pet", who sets these rules and standards? It is individuals as members of groups, community, and society who set the rules or standards to be followed by all the members.

However, since these are value-laden terms, what may be considered, 'normal' by some people may be considered as 'abnormal' by others and vice versa. This becomes more challenging as not only the subject matter of the field of abnormal psychology, but also its very nomenclature depends on the clear distinction between normality and abnormality. Experts agree that it is almost impossible to discuss abnormal behavior (psychopathology) without the framework of values. Hence, it has been suggested that values should be explicitly put forth while defining normality and abnormality. Let us consider the concepts of normality and abnormality defined by various experts in the following section:

(1) **Criteria of Normality**

Sheldon J. Korchin (1986) has based his views of normality on the survey conducted by Offer and Sabshin (1966) on the varied meanings of normality in the different fields of study such as psychology, anthropology, sociology, and psychiatry:

- *Normality as Health*

It means absence of sickness is normal. Thus, a person who does not have any pathology, i.e., who is symptom-free and is not hospitalized or underwent treatment is normal. It implies that most of the people are normal, while only some are abnormal.

- *Normality as Ideal (Utopia)*

It goes a step further from viewing normality as health, i.e., as being symptom free. It says that normality does not mean, 'only being free from disease' but it means achieving the ideal state, such as Roger's fully functioning person, or Maslow's self-actualized person, or Allport's mature personality. However, you must have noticed the term, 'utopia' in parentheses. Utopia means an imagined place or state of thing in which everything is perfect or ideal. This raises another question, i.e., what is perfect or ideal? There is no clear-cut and single answer to this question, as what is perfect for one person may not be so for another. People's values define 'perfect' or 'ideal' state. Since values entail biases so it has not been possible to conclusively define the ideal or perfect state. Thus, being in an ideal state is imaginary and impossible to achieve. Freud, therefore, has referred to normality as ideal

fiction. Nevertheless, it is an important criterion as the goal of psychologist is to help people achieve health and optimum level of functioning.

- *Normality as Average*

Nature tends to distribute a given attribute or phenomenon in the world in such a way that most of the cases representing that attribute have similar values, while only a few cases have extreme values. If a mean or average is calculated of these values, then most of the cases tend to cluster around the mean, while those with extreme values tend to fall away from the mean or average. In statistics, such a distribution of cases is known as normal distribution and is graphically represented by a bell-shaped curve, called the normal probability curve. The cases clustering around average are conceptualized as normal while the cases at the extreme as abnormal.

According to statistical theory, cases clustering around average are normal while the cases falling away from average at either side are abnormal. Moreover, the farther away a case is from average, the more abnormal it is.

Statistical description is believed to be scientific. However, it is not value-free since we do not describe both the extremes equally as abnormal. For example, a person can have an IQ, which deviates from average on either side of the normal probability curve, i.e., it can be significantly above or below average, but we describe only the IQ significantly 'below' average as abnormal. Nonetheless, the concept of normality as average is utilized widely in clinical practice for diagnosis and assessment.

- *Normality as Socially Acceptable*

Social norms determine normality, i.e., behavior which conforms to the social norms is normal. This implies that we should neither seek nor accept the universal definitions of normality. Rather, normality is a socially specified concept. According to Ralph Linton (1956), "The tests of absolute normalcy are the individual's ability to apprehend reality, as understood by his society, to act in terms of this reality, and to be effectively shaped by his society during his developmental period. The test of relative normalcy is the extent to which the individual's experience has given him a personality conforming to the basic personality of his society."

In 1930s anthropologists gave the concept of *cultural relativism* to describe the role of society in defining the normal behavior of an individual. According to cultural relativism, what may be considered as normal in one society may be considered as abnormal in another society, e.g., possession by a goddess is normal in some Asian societies while it may be considered as a mental disorder by western societies. A problem, however, in defining normality as socially acceptable is that it entails a risk of encouraging conformity and non-conformity as a criterion for normality and abnormality, respectively. Conformity to social or cultural norms is taken as a sign of normality, however, rigid conformity may be pathological. For example, rigid conformity to social norms laid down by an autocrat is pathological, whereas non-conformity to such behavior is normal.

This has been clearly illustrated by Milgram's classical study. In his study, Milgram showed that the participants were ready to give electric shocks (*participants were made to believe that they were giving actual electric*

shocks) to the other participants (*confederates*) in the other room despite listening their screams. Most of the participants showed conformity to the researcher's instructions even if it meant hurting others. Very few participants showed non-conformity. Thus, we can see that conformity to social norms may not always be 'normal'.

- *Normality as a Process*

Normality defined as a process defines it temporally. That is, over the time, as an individual passes through different developmental phases, his/her behavior is evaluated according to the given phase. Thus, babbling is considered to be normal for an infant, but as an abnormal behavior for a 5-year-old child or for an adult.

Box 1.1 Time to Review:

- Identify the criteria of normality.
- Does normal necessarily means a characteristic which is closer to average?
- Identify some socially acceptable behaviors which are not normal.

(2) Criteria of Abnormality

Several criteria of abnormality have been identified (Lilienfeld et al., 2013). The more someone meets these criteria, the greater the possibility for them to show abnormality.

- *Distress*

In psychology, distress can be defined as mental suffering or mental agony. Thus, any cognition, emotion and/or action causing mental suffering or mental agony in an individual may indicate abnormality. However, distress does not always indicate abnormality. Further, presence of abnormality does not always lead to distress. For instance, a person who reports distress due to worrying about an impending job interview cannot be labeled as 'abnormal'. Furthermore, a person suffering from an abnormality such as anxiety or depression reports distress, whereas another person suffering from an abnormality such as the manic phase of bipolar disorder, or substance use disorder, or antisocial personality disorder does not report distress.

- *Social Discomfort*

Another indicator of abnormality is violation of an implicit or unwritten rule by an individual that causes discomfort to others. For example, to greet someone is an implicit rule. However, you feel uncomfortable if a stranger in a crowd suddenly rushes to you, greeting you excitedly with a forcible handshake. But you also have a sense of discomfort if someone known to you doesn't greet you at all or discreetly greets you and rushes away. Thus, whether this behavior can be categorized as abnormal depends on the situation.

- *Maladaptive Behavior*

Maladaptive behavior causes impairment in personal, occupational, and social functioning of an individual and thus it is an indicator of abnormality. Does maladaptive behavior always lead to impaired functioning? Consider the cases of two individuals Ms. D. and Mr. J. While Ms. D. suffers from

obsessive-compulsive disorder where washing compulsion led to elaborate cleaning rituals that significantly interferes with her daily life functioning, affecting her psychological and physical well-being. On the other hand, Mr. J has an antisocial personality disorder due to which he indulges in extreme risk-taking behaviors, endangering his life as well as that of others. But rather than considering it as maladaptive, Mr. J enjoys his behavior. Though, Mr. J's behavior is not maladaptive to himself, but it is maladaptive for others. Hence, it is clear from the example of Ms. D and Mr. J that a behavior which is maladaptive either toward self or society or toward both is an indicator of abnormality.

- *Standard Deviation*

Abnormality is also defined in terms of deviation from normal, i.e., being away from normal is abnormal where the 'ab' means away. In other words, rarity is an indicator of abnormality. However, rare does not always means undesirable. For example, in case of IQ, a score which is significantly above or below mean is away from normal, hence both the scores should be considered as abnormal. However, while the score significantly below the mean indicates intellectual disability (ID) and referred to as 'abnormal', the score significantly above the mean score indicates 'genius' and is not referred to as 'abnormal' though it is also away from the mean.

- *Culturally Unexpected/Violations of the Standard Rules of the Society*

Culturally unexpected action or an action that violates the standard rules of the society is taken as an index of abnormality. For example, going into a trance or being possessed by a ghost or a goddess is accepted in Indian culture. However, it is context dependent. Thus, if an individual goes into a trance in an overnight religious gathering called, '*jaagaran*', it is seen as normal. However, if a person shows the same behavior in a daily life setting like school, office, or home, it is interpreted as 'abnormal' as going into a trance during daily life routine is not culturally expected.

It is clear from the above discussion that there is neither a necessary nor a sufficient criterion for defining normality and abnormality. That is, there is neither a single criterion that is present in all the normal or abnormal behavior, nor there is any single criterion that is enough to indicate normality or abnormality. Nevertheless, there are several criteria, which indicate abnormal behavior or psychopathology and need intervention for the well-being of the individual as well as society.

Hence, psychologists have attempted to define a psychological disorder based on these criteria of abnormality. There are two standard classification systems for defining and diagnosing psychological disorders namely, the Diagnostic and Statistical Manual of Mental Disorders (DSM) constructed by the American Psychiatric Association (APA), and the International Classification of Diseases (ICD) provided by the WHO and is used widely outside the USA. Several editions of both the manuals, DSM and ICD have been published over the last 75 years, the latest being DSM-5 and ICD-10 (you will learn more about these in later sections).

*(Note: The eleventh revision of the ICD, the **ICD-11**, was accepted by WHO's World Health Assembly (WHA) on 25 May 2019 and will officially come into effect on 1 January 2022.)*

Box 1.2 Time to Review:

- Identify the criteria of abnormality.
- Is a characteristic below standard deviation always abnormal?
- Identify some culturally unexpected behaviors which are normal.

DSM-5 (APA, 2013) defines the **psychological disorder** as a,

“syndrome that is present in an individual and that involves clinically significant disturbance in behavior, emotion regulation, or cognitive functioning. These disturbances are thought to reflect a dysfunction in biological, psychological, or developmental processes that are necessary for mental functioning. DSM-5 also recognizes that mental disorders are usually associated with significant distress or disability in key areas of functioning such as social, occupational, or other activities. Predictable or culturally approved responses to common stressors or losses (such as death of a loved one) are excluded. It is also important that this dysfunctional pattern of behavior do not stem from social deviance or conflicts that the person has with society as a whole.”

Though this definition is arbitrary as it does not satisfy all the professionals, but it is a working definition that allows us to delve further into the area of psychopathology.

Box 1.3 Time to Review:

With the help of the enlisted criteria of normality and abnormality in the above sections, define a psychological disorder.

1.4 HISTORICAL PERSPECTIVE OF PSYCHOLOGICAL DISORDERS

Psychopathology, conceptualized as an abnormal condition of human beings has a long history. Perhaps, it is as old as the advent of humanity on this earth. Let us trace the journey of psychopathology described by Butcher, Hooley, and Mineka (2019) as an exclusive field of study from the ancient past to the present era:

a) The Ancient Period

The story begins before the common era (BCE) as is evident from the human skulls found with holes drilled into them. This procedure is known as trepanning which was used as a treatment of psychopathology. A hole/s were bored into the skull of the affected person to let out the psychopathology causing evil spirit and thus, cured the person. Surprisingly, some of the people not only survived such crude treatment, but also lived beyond treatment, as some of the skulls showed signs of healing. This is one of the earliest examples of demonology and exorcism, which continued over several centuries into the common era, though without drilling holes into people's skulls! Magical potions, sacred chants, holy water, and charms were used for exorcism. For example, the New Testament narrates an incidence which describes Jesus exorcising demons out of a woman through chants and holy water. Although, the demonology dominated the psychopathology scene before the common era across the globe, however, ‘somatogenesis’

(idea that origin of the abnormal behavior is the body) was in nascent stage in different ancient civilizations like, Greece, Egypt, China, and India. For example, in Greece, Hippocrates (460-377 B.C.) revolutionized the understanding of nature and causes of abnormal behavior. He suggested that brain was the seat for consciousness and pathology of brain lead to abnormal behavior.

In Ancient India, a religious text, Atharvaveda described the mental disorders in terms of severity and prescribed its treatment. Further, *Charak Samhita* and *Sushruta Samhita* were written by medical practitioners *Charak* and *Sushruta*, respectively. Both the treatise described mental disorders as originating from internal causes (within the body), external causes (environment) and psyche. China had a well-developed field of medicine during the second century. Chung Ching a renowned Chinese practitioner who is referred to as Hippocrates of China wrote two extensive treatises in medicine in 200 A.D. Like Hippocrates, he also suggested both somatogenic and psychogenic explanations for mental disorders. In Greek and Roman empires, Hippocrates' tradition was carried forward by the Greek and Roman physicians. Egyptian medicine was also influenced by Hippocrates' work and flourished. Sanatoria were founded in the temples of Saturn to provide pleasant surrounding as a remedy for mental illness. Rome was indebted to the progressive work in medicine by Galen (130-200 AD), one of the most influential Greek physicians who furthered Hippocrates' work. He suggested mental disorders are caused due to physical and mental/psychological related factors (Butcher, Hooley, & Mineka, 2019).

b) The Middle Ages

The middle ages witnessed views of abnormality in Asia and Europe. While the scientific approach of Greek medicine was adopted by the Islamic world and flourished in the Middle East, like Baghdad, Damascus and Aleppo (Polvan, 1969), Europe was plunged into darkness, as it reverted to demonology and exorcism for the treatment of mental illness. In contrast to the humane treatment of mentally ill in the Middle East under the guidance of Avicenna (980-1037 AD), the "Prince of the Physicians"; inhumane treatment was meted out to the mentally ill in Europe. In the 14th century and 15th century Europe, plague, famines, fiefdom, and poverty led to several episode of mass madness. The mass madness was characterized by collectivist abnormal behavior, where large groups of people believed that they were possessed by devil/wolves/witches and thus behaved abnormally like howling, dancing, jumping, convulsing. People could not relate the mass madness to the social stressors such as famines and plagues and believed that either they were poisoned by insect bites or were possessed by animals or supernatural powers. At the time, when the first mental hospital was founded in Baghdad to treat the mental disorders, Europe was trying to treat mental illness through exorcism and witchcraft. Many people, particularly women accused of having a secret pact with the demon and witchcraft were persecuted and burnt at stake or beheaded in public (Butcher et al., 2019).

c) Fifteenth to Eighteenth Centuries

Fortunately, Renaissance occurred in Europe between 15th and 18th century, and provided the much-required impetus for the scientific temper that

challenged the underlying superstitious explanations for mental disorders. For example, a Swiss physician, Paracelsus (1490-1541) gave a scientific explanation for mass madness. He rejected the superstitious beliefs and suggested that mental diseases rather than possession were the cause of mass madness. A German physician Johann Weyer (1515-1588) was deeply upset by witch-hunting and published a book in 1583, *“On the Deceits of the Demons”* as a rebuttal of the *“Malleus Maleficarum”* (Witch’s Hammer) which was a guidebook for witch-hunting, published in 1486. Weyer was one of first few physicians who specialized in mental disorders. His extensive contributions and progressive attitudes in the field of mental illness earned him the title of the ‘Founder of Modern Psychopathology’. However, his modern outlook was far ahead of his times and even many of his colleagues did not agree with his views and he was ridiculed. Due to his critique of witch-hunting and possession, the Church turned against him and banned his works. However, voice of reason could not be stifled for long, as even the Church faced dissent from clergy on the issue of maltreatment of mentally ill. For example, St. Vincent de Paul (1576-1660) risked his life to advocate for humane and medical treatment of mentally ill people who he insisted were diseased and not possessed (Butcher et al., 2019).

According to Butcher, Hooley, and Mineka (2019), persistent advocacy of scientific view for the study and treatment of mental illness gained ground in Europe which paved the way for the establishment of mental asylums in different parts of Europe. Though these asylums were established with a good intention of providing humane treatment to the mentally sick people, however, the conditions at these asylums soon became deplorable. While severely mentally ill people were chained, starved, and were put for public exhibition for a small fee, those with mild and moderate mental illness were forced to beg on the city streets. One such asylum was St. Mary of Bethlehem in the 16th century London which was notorious as ‘Bedlam’ because of the poor living conditions and excessive noise made by the inmates. Asylums for mentally ill were also established in other countries such as Russia (1764), Mexico (1556), France (1641) and USA (1756, 1768).

CONTROVERSY

Jean Baptist Pussin, a predecessor of Pinel had claimed in a document that he was the first person who unchained the asylum inmates and forbade the staff from beating up the patients in 1784.

Unfortunately, these mental asylums were a modification of penal institutions like jails. Though, the goal was to treat the mentally ill, however, the treatment techniques were harsh and crude like, physical restraints, throwing into icy cold or hot water tubs, blistering, bleeding, electric shocks etc. Though, many of those techniques were precursors to modern day treatment, but the underlying idea was to intimidate and frighten the patient into compliance, so that they were forced to choose rationality over insanity. Thus, most of the mental asylums in Europe and USA worked on the premise of ‘Frighten than Treat’ and needed reforms. A pioneer in the humanitarian reform of the mental asylums was Philippe Pinel (1745-1826) in France. Pinel advocated for the kind treatment of people with mental illness. He emphasized that the people languishing in asylums were sick and not criminals or beasts and should be treated with compassion and kindness. He unchained the asylum

inmates and provided the clean, hygienic surroundings with sunlight and fresh air, food, and water (Butcher et al., 2019).

Around the same time when Pinel was implementing the asylum reforms in France, William Tuke (1732-1822) in England established a pleasant country home, named, "York Retreat" where patients with mental illness lived and worked in peaceful environment. Tuke's reforms gradually found supporters in medical fraternity, such as Thomas Wakley and Samuel Hitch who facilitated engagement of trained nurses and supervisors to take care of patients in the asylums. Such reforms not only revolutionized the treatment of the patients with mental illness but also brought a change in public attitude towards mental illness. Further, it led to constitution and implementation of parliamentary acts, like Lunacy Inquiry Act (1842) and the Country Asylums Act (1845) under which every county had to mandatorily provide asylum to 'lunatics and paupers' and all the asylums were to be inspected regularly for ensuring the provision of amenities like clean environment, proper diet and elimination of inhuman treatments such as chaining and beatings. Gradually, these Acts were extended to all the British colonies such as Australia, Canada, India, South Africa.

Pinel and Tuke's reformative work not only earned them supporters throughout Europe, but it also found resonance across the Atlantic in the work of Benjamin Rush (1745-1813) in USA. Rush was the founder of American Psychiatry and an advocate of moral management of patients with mental illness. Moral management has its roots in the reformative work of Pinel and Tuke. It is a treatment which takes a global view of the patient by addressing his/her personal, social, and occupational and spiritual needs. The moral management showed astonishingly high discharge rates of patients. Thus, moral management achieved a very high success rate for curing patients with mental illness (Butcher et al., 2019).

d) Nineteenth to Twentieth Centuries

However, the galloping moral management with its significant effectiveness was halted by several factors (Butcher et al., 2019):

First, moral management was crushed under its own weight for many reasons, such as, reformers were not able to train their successors who could replace them, overstretching of existing hospital facilities, and an increasing number of immigrant patients led to ethnic/cultural clashes between the staff and the patients. Second, advances in biomedical science led to emergence of a view that all mental disorders are caused by biological factors and thus should be biologically treated (Luchins, 1989). Hence, one can say that in the nature-nurture debate, nurture lost its position as a causal factor for mental disorders. Third, mental hygiene movement was started by a school teacher, Dorothea Dix (1802-1887) who championed the cause of inmates left to languish in prisons and mental institutions in subhuman conditions and forgotten by their families as well as society. She carried out a campaign, named mental hygiene movement to awaken public as well as legislatures to the plight of forgotten inmates. Her campaign raised millions of dollars in funds for more suitable mental hospitals. She successfully persuaded government agencies to build public funded mental hospitals (earlier most of the mental institutions were charitable facilities under

private trusts). Mental hygiene movement led to considerable improvement in the condition of the mental hospital in USA. Dix was instrumental not only in establishing mental hospitals in USA but in other countries also, such as Canada, Scotland etc. She successfully established a total of 32 mental hospitals through the mental hygiene movement.

According to Butcher et al. (2019), over the next several decades of its initiation, the mental hygiene movement remained active, leading to improved living conditions in the mental hospitals. However, with the death of Dorothea Dix and waning public interest for the cause of mental illness, the mental hygiene lost its momentum. The mental hospitals, though much larger in size and number, reverted to previously miserable conditions with their inmates once again being conspicuous by their absence from public discourse and memory. Thus, despite the sincere efforts of Pinel, Tuke, Wakely, Hitch, Rush, Dix and perhaps, many more unknown benefactors, the mental asylums and hospitals remained overcrowded, deplorable places with malnourished and maltreated forgotten patients. The mental asylums and hospitals aroused in public image of an eerie dungeon with horrific, frightening, and dangerous occupants. One reason for an unchanging negative public opinion about mental hospitals and their inmates was the silence of the psychiatrists on the issue of mental illness in public. In the latter part of 19th century, psychiatrists took over the control of mental asylums and hospitals by incorporating the moral management with crude treatment techniques. However, the treatment techniques used by psychiatrists did not prove to be effective in helping the patients. Therefore, psychiatrists could not bring awareness and alleviate fear of mental illness in public.

The scenario once again changed in the second half of the 20th century with the successful use of psychiatric medication (chlorpromazine in 1950) which led to marked reduction in psychiatric symptoms and better control on behavior. A small pill achieved something that had remained out of bounds for centuries despite putting in all the efforts ranging from inhuman to humane practices to treat the patients with mental disorders. Medication not only treated patients but also promised better quality of life for them as they were no longer required to be physically restrained or confined to the four walls of the mental asylum. For the first time in the history of psychopathology they were found to be fit and free to return to the community. This freedom gave impetus to the deinstitutionalization movement (Butcher et al., 2019).

According to Butcher, Mineka, and Hooley (2019), the deinstitutionalization movement forced the closure of mental asylums and hospitals---a mark of inhuman treatment and encouraged the society to reuptake the patients. This was done to achieve more human treatment and reintegration of the patients into the community, thereby improving the quality of life of the patients as well as of the society. With the promise of better quality of life, the deinstitutionalization had a mass appeal and soon became an international movement. Across the world, the mental hospitals were increasingly seen as a sign of oppression and as an encroachment on human rights. Therefore, many countries followed deinstitutionalization extensively, e.g., England, Wales, Italy, Hongkong, Finland, Netherlands where mental hospitals were closed on a large scale and focus of patient care shifted to community-based

facilities. In Italy, in a follow up study, 22 mental hospitals were closed, with 39% of patients shifted to nursing homes, 29% to residential facilities, 29% to other psychiatric hospitals and ironically only 2% were returned to their families (D'Avanzo et al., 2003). The goal of deinstitutionalization was to provide humane and cost-effective treatment to patients in their natural surroundings with personal touch which could not be achieved in large hospitals with overburdened staff. It was suggested that long periods of confinement in the mental hospitals encouraged patients to take the role of a sick person and made them dependent on others for self-care. Hospitalizations were seen as hindrance to achieve normalcy in patients' lives for they could not readjust to the community life outside the hospitals.

Studies such as the one by D'Avanzo et al. (2003) clearly indicate that deinstitutionalization could not achieve its original goal of returning the patients to the family and society. In fact, many patients could not readapt to the challenges of family and social living and were pushed to the periphery of society as slum dwellers and street beggars. Deinstitutionalization, on the one hand freed patients from inhuman treatment of mental hospitals, but on the other hand it failed to make family and social conditions amenable for the reabsorption of those patients. Clearly, this movement could not fill the gaps in the community mental health services. There is no doubt that advanced biological and psychological treatment techniques have increasingly made mental hospitals obsolete. However, the gaping holes in rehabilitation programs have kept alive the debate about the best ways to provide care to the people with mental disorders. Well past the two decades into the 21st century, there is a need to develop more evolved two-pronged mental health programs and policies which not only work with the patients but with the society as well to ensure the personal and social integration of the patient as a productive member of the society (Butcher et al., 2019).

At the time, when mental hygiene movement swept across USA, oiled by industrial revolution, technological advancement also took place rapidly in USA and Europe in the different fields of science like biology, chemistry, and physics. Advanced technology also provided the thrust for the development of scientific research-oriented view of psychopathology, which eventually led to the emergence of contemporary views, causes, and treatment of mental disorders (Butcher et al., 2019).

Box 1.4 Time to Review:

- Were the psychological disorders in ancient and middle ages characterized by demonology and witch-hunting only?
- How is moral management different from mental hygiene movement?

Now, let us study the events through which the contemporary view of psychopathology emerged:

1.5 CONTEMPORARY PERSPECTIVES OF PSYCHOLOGICAL DISORDERS

a) Biological Perspective

Extensive research by several scientists spanning over a century led to the

discovery of biological and anatomical causal factors underlying physical and mental disorders, e.g., general paresis- a mental disorder which led to paralysis, insanity, and death within 2 to 5 years. The discovery that general paresis is caused by syphilis, a bacterial infection of brain was a breakthrough in the field of psychopathology as it established the link between the brain and mental disorders. It provided an impetus to the view that all mental disorders have underlying organic basis thereby opening a new gateway for the biologically based treatment techniques, such as lobotomies (lobotomies were crude, ineffective and so were discouraged). While the discovery of organic bases answered the question, “how” brain pathology causes a mental disorder, however, it did not answer, “why” brain pathology causes a mental disorder. The answer to “why” remains elusive as it is still unknown, for example, why brain pathology does not always lead to mental disorder in all the people. Nevertheless, scientists’ continued pursuit has helped us to develop better understanding of the mental disorders, e.g., classification of mental disorders by a German Psychiatrist Emil Kraepelin (1856-1926) was another major contribution to the field of psychopathology. Kraepelin observed that certain symptoms occur together regularly in a specific pattern which can be grouped to denote a specific mental disorder. Based on this observation, he went on to give a classification system which put the mental disorders into distinct categories with their description, course, and predicted outcome. This laid the foundation for today’s classification systems, such as DSM (Butcher et al., 2019).

b) Psychological Perspective

Mesmerism

According to Butcher, Mineka, and Hooley (2019), as one group of scientists focused on the biological research, at the same time another group actively explored the psychological causation of mental disorders. Freud undertook the pioneering work in the psychological tradition. He put forth the concept of psychogeny, that is, mental disorders originate in the psyche or mind. He furthered this concept by developing the theory of psychoanalysis, which revolutionized the field of psychopathology and is known as the ‘First Force of Psychology’. The antecedents of Freudian psychoanalysis can be traced back to mesmerism and hypnosis. Mesmerism is a technique that derives its name from its inventor Franz Anton Mesmer (1734-1815), an Austrian physician. He was influenced by Paracelsus, a 16th century physician and a scholar who suggested that human body is influenced by planets. Mesmer suggested that the distribution of a universal magnetic fluid in the human body is affected by planets which determines health and disease in the humans. He further noted that human beings can influence the distribution of magnetic fluid in each other through their magnetic forces, and thus could cure the diseases including the mental diseases. He was able to cure hysterical paralyses and anesthesia through mesmerism. Mesmerism was initially famous, but Mesmer’s medical colleagues and scholars did not find merit in his theory and discredited it. However, later Mesmer’s claims were connected to hypnosis which was practiced by the Nancy School.

Nancy School

Liebeault (1823-1904), a French physician in the town of Nancy successfully

practiced hypnosis. Bernheim (1840-1919), a professor of medicine was influenced by Liebeault's successful treatment of a patient through hypnosis, whom Bernheim failed to treat through conventional medical methods for four years (Selling, 1943). Working as a team, Liebeault and Bernheim hypothesized that hypnotism and hysteria are related to each other since both occurred through suggestion. They showed that the symptoms of hysteria like paralysis of an arm and anesthesia (inability to feel pain) could be produced as well as removed in normal people through hypnosis. Hence, they concluded that hysteria is caused by self-hypnosis. Adherents of the view that mental events could cause mental disorders came to be known as followers of the Nancy School. Jean Charcot (1825-1893), a leading neurologist in Paris researched on mesmerism and suggested that hysteria was caused by degeneration of brain areas and thus vehemently disagreed with the Nancy School. However, later, he not only accepted the views of the Nancy School but also actively promoted the study of underlying psychological causes of mental disorders (Butcher et al., 2019).

Psychoanalytic View

Interestingly, the debate on biological factors versus psychological factors as causes of mental disorders continues till today. Nevertheless, by the end of the 19th century growing research evidence has suggested that mental disorders can be caused by biological and/or psychological factors. Once the causal role of psychological factors was established, the next question was how the psychological factors lead to mental disorders. Sigmund Freud's (1856-1939) work denotes the first systematic attempt to answer this question. Freud was a neurologist in Vienna who went to Paris to study under Charcot and was introduced to Nancy School. Based on his study of hypnosis, Freud concluded that humans are not consciously aware of many powerful mental processes. On returning to Vienna, he worked with Josef Breuer (1842-1925), a Viennese physician who had introduced talking in hypnosis. Freud and Breuer asked their patients to talk freely during hypnosis which gave the patients an emotional relief and termed as 'catharsis.' This enabled them to understand the underlying causes for symptoms. Further, patients could not relate their problems with hysterical symptoms. This unawareness led Freud to discover the unconscious and its role in determining behavior including the pathological behavior. On the basis of these observations, Freud developed the theory of psychoanalysis with different techniques like free association, dream analysis. Freud psychoanalysis earned both followers and dissidents in the same measure. Though, his theory was severely criticized, however, it remains one of the most influential theory and interest in it persist till date. It cannot be agreed more that the mass appeal of psychoanalysis had popularized it among scientists and lay public equally.

A major challenge to psychoanalysis came from the scientific community of experimental psychology. In 1879, Wilhelm Wundt had established the first lab of experimental psychology at the university of Leipzig, to encourage the empirical study of psychological factors that underlie memory, sensation, perception. The study of abnormal behavior by early researchers such as James, Hall, Cattell was also strongly influenced by the experimental method of Wundt and his colleagues. Wundt's experimental methods were

taken to USA by Cattell and researcher labs were established across USA. Witmer (1867-1956), a student of Wundt established the first American psychological clinic in 1896 in the University of Pennsylvania. Witmer's clinic encouraged research and therapy related to problems of children with mental deficiencies. Witmer influenced the growth of clinical psychology as a profession and is considered the founder of clinical psychology. William Healy (1869-1963) founded Chicago Juvenile Psychopathic Institute in 1909. He was among the first to note that juvenile delinquency is caused by urbanization and not by inner psychological conflicts. Thus, he was among the first to recognize the causal role of environmental or sociocultural factors in mental disorders. Experimental psychology had prepared the ground against psychoanalytic explanations of abnormal behavior, but it was school of behaviorism emerging out of experimental psychology that formally challenged psychoanalysis, in the early 20th century (Butcher et al., 2019).

Box 1.5 Time to Review:

- Trace the journey of Psychoanalysis from mesmerism and Nancy school.

Behavioral Perspective

According to behaviorism only the behavior that can be directly observed, measured, controlled, verified, and predicted should be the subject matter of psychology. Since subjective experiences, e.g., unconscious, free association, dream analysis cannot be verified by other investigators, hence these cannot provide scientific data. The central theme of behaviorism was that all behavior including the abnormal behavior is learned. Hence abnormal behavior can be unlearned, and adaptive behavior can be learned in its place.

The behavioral perspective on abnormal behavior was based on classical conditioning. In classical conditioning, a new behavior is learned through pairing of a neutral stimulus with an unconditioned stimulus. It originated in the work of Ivan P. Pavlov (1849-1936) a Russian physiologist who discovered the conditioned reflex. While working with dogs in his lab, he serendipitously discovered that the dogs began to salivate to the sound of bell after it had been regularly paired with the food. In other words, dogs were conditioned to salivate to a non-food stimulus.

In USA, John B. Watson (1878-1958) was searching a scientific

Classical conditioning

Prior to conditioning:

Conditioned Stimulus (neutral).....	Orientation response to bell
CS (Bell)	
Unconditioned Stimulus.....	Unconditioned Response
UCS (Food)	UCR (Salivation)

During conditioning:

Conditioned Stimulus (CS)	
(Bell)	
+	Conditioned Response
Unconditioned Stimulus (UCS)	CR (Salivation)
(Food)	

Following Conditioning:

Conditioned Stimulus (alone).....	Conditioned Response
CS (Bell)	CR (Salivation)

way to study human behavior. Classical conditioning inspired him to study its effect on human behavior and thus came his famous experimental study with 'Little Albert.' Applying the principles of classical conditioning, Watson showed that people can be conditioned to fear even the fear neutral objects, that is, phobias are learned. In subsequent studies with his students, he also showed that by applying the same principles of classical conditioning, phobias can be unlearned also.

Watson's experimental studies came as a major blow to psychoanalytic explanations of abnormal behavior, as it shifted the focus of psychology from the study of inner, subjective experiences to the study of overt behavior. Watson named this approach as 'Behaviorism' which became highly influential first in American Psychology in 1930s and remains so till today across the globe. Another important contributor in behaviorism was B. F. Skinner's (1904-1990) operant conditioning. Based on experimental studies on animals and birds, Skinner observed that behavior operates on the environment to produce certain outcomes and those outcomes determine the likelihood of the repetition of that behavior in similar conditions. Simply put, outcomes reinforce the behavior. For example, if a pigeon gets food pellets on pressing the lever, that will increase their lever pressing behavior. Skinner called it operant conditioning. He further suggested that an organism's behavior can be shaped through reinforcement in the form of praise, gifts, prizes etc. Thus, by withdrawing a positive reinforcement a maladaptive behavior can be extinguished. Behavioral perspective's challenge to the supremacy of psychoanalysis by shifting the focus from nature to nurture (environment) as the main cause of normal and abnormal behavior established it as the 'Second Force in Psychology' (Butcher et al., 2019).

Humanistic Perspective

Yet another perspective emerging on the scene was humanistic psychology that came as a response to the deterministic viewpoints of psychoanalysis and behaviorism. According to psychoanalysis, it is the inner mental processes and conflicts whereas according to behaviorism, it is the environment that determines the human (normal and abnormal) behavior. Both schools ignored the role of free will in human behavior and took a mechanistic view of human beings as if the humans were like machines running on the fuel (unconscious/reinforcement). Humanistic psychology was a response to depersonalization, that was a resultant of rapid industrialization and mechanization. People had begun to feel alienated from their jobs. In psychological labs, research was conducted on animals or on human functions in isolation, away from human beings (King, Woody, & Viney, 2013).

According to humanistic psychologists, human behavior is too complex to be investigated by the simplistic empirical research. They tried to restore to psychology, distinctly human aspects, such as, people's innate capacity for creativity and goodness, and self-concept (*mental portrait of ourselves, according to which we judge and interpret our behavior and existence*). Humanistic psychology took a positive view of human beings and emphasized on the role of free will, meaning, creativity, values, love, hope, personal growth, and self-fulfillment. According to a famous humanist, Carl Rogers, human beings have a free will (an innate capacity

to choose what is good for them through a valuing process) which guides our behavior and help us to achieve a meaningful and fulfilling life. We can achieve self-actualization by developing our full potential. Denial of our own experiences, feelings and values will hamper our personal growth and mental well-being, and lead to psychopathology (Butcher et al., 2019). The Humanistic viewpoint gained momentum in 1960s by questioning the dominant forces of psychoanalysis and behaviourism grew so rapidly that it was hailed as the 'Third Force in Psychology.'

These three forces of psychology have been integrated into a comprehensive and holistic view to understand abnormal behavior, its causes, and treatments.

Box 1.6 Time to Review:

- Identify the prevailing conditions that led to the emergence of humanistic perspective as the third force in psychology.

We can appreciate from the above discussion that our struggle to understand and to discern between normal and abnormal behavior has spanned over several centuries. The tumultuous journey of various thinkers and researchers to understand the causes of psychopathology and to find its treatment has led to the emergence of modern concepts of psychopathology. We can say with a great feeling of relief that the past tribulations of humanity at the hands of mental illness have culminated into the contemporary era of scientific understanding of psychological disorders and their effective treatment.

Box 1. Time to test your skills!

- 1 (A) Review the case history of the family of Mrs. and Mr. A given in the beginning of the Unit and evaluate the family members for psychopathology in the light of the criteria of normality and abnormality. (refer to section 1.3)
- 1 (B) Fill in the blanks:
 - i) Normality as _____ says that normality does not mean, 'only being free from disease but it means achieving the ideal state.
 - ii) The criterion, normality as socially acceptable, says _____ determine normality.
 - iii) The criteria of abnormality include distress, _____, maladaptive behavior, _____, and culturally unexpected actions.
 - iv) In ancient Greece, _____ suggested that brain was the seat for consciousness and pathology of brain led to abnormal behavior.
 - v) The discovery that general paresis is caused by syphilis was a breakthrough in the field of psychopathology as it established the link between the _____ and mental disorders.
 - vi) The first and second forces in psychology are _____ and _____.
 - vii) According to operant conditioning, outcomes of a behavior on the environment _____ the behavior.
 - viii) According to the humanistic psychology, ability to achieve our full potential is known as _____.

- ix) Humanistic Psychology suggests that psychopathology occurs due to the distortion or blocking of _____.
- x) _____ (980-1037 AD) from Baghdad is referred as, the “Prince of the Physicians”.

Answers Key to Box 1. Time to Test your Skills:

- i) utopia/ideal,
- ii) social norms,
- iii) social discomfort & standard deviation,
- iv) Hippocrates,
- v) brain,
- vi) psychoanalysis & behaviorism,
- vii) reinforces
- viii) self-actualization,
- ix) personal growth,
- x) Avicenna

1.6 CLASSIFICATION OF PSYCHOLOGICAL DISORDERS

Psychological disorders can have a very significant impact on the life of an individual and their family members. It can affect their development and functioning in academic, work as well as personal and social aspects. The challenge is also compounded due to the stigma associated with mental disorders and lack of availability of sufficient trained mental health professionals. Hence, it is important to make a correct diagnosis as it forms the basis for adequate assessment and appropriate treatment/intervention for the disorder.

“A **diagnosis** is the identification of the nature of a disorder” (American Psychiatric Association, APA, 2000). It is the keystone in the edifice of assessment and treatment of a disorder. If the keystone is not correctly placed, the building will come crashing down. In order to ensure a proper and uniform diagnosis across the experts/researchers, it is important to have a common classification system of psychological disorders. Like we have standardized psychological tools so that there is uniformity in administration, scoring, and interpreting the test scores, similarly a standard classification system of mental disorders ensures correctness and uniformity in diagnosis. Thus, a diagnosis is made by assigning a patient’s symptoms to a specific classification system (Rosenberg & Kosslyn, 2011), which serves as the base and ensures credibility of the diagnosis.

Classification is the systematic arrangement of information into groups or categories based on observations. In abnormal psychology, a **classification system** provides a standard, which can be used to compare an individual’s behaviour and psychological functioning to diagnose if they have a psychological disorder. Classification in abnormal psychology has been

defined as an attempt to delineate meaningful sub varieties of maladaptive behavior (Carson, Butcher, & Mineka, 2007).

Across the world, different classification systems over the centuries have been used to categorize various types of mental disorders based on different principles. For example, in ancient Greece, Hippocrates classified mental disorders based on the level of four bodily humors, namely, blood, phlegm, yellow and black bile. For example, a person with excessive black bile suffered from a mental disorder called melancholia. In Chinese medical tradition, body has yin and yang, positive and negative energies, respectively. An imbalance between yin and yang led to mental disorders. In India, the treatise on medicine, called Ayurveda, differentiated between three bodily humors, vata (ether), pitta (bile), and kapha (phlegm). The imbalance in these three humors leads to different mental disorders (Dwivedi, 2002). Further, two ancient Indian physicians, Charaka and Sushruta classified the mental disorders based on origin, endogenous (nija), exogenous (agantuja), and psychic (manasa) (Butcher, Hooley, & Mineka, 2019).

A German psychiatrist, Emil Kraepelin (1856-1926) developed the first modern classification system for classifying the mental disorders (Boyle, 2000). Kraepelin thoroughly and systematically observed patients and concluded that certain symptoms occur in a pattern so regularly that these can be categorized as specific disorders. Based on such categorization, he gave the classification system with two categories of mental disorders, manic-depressive psychosis, and dementia praecox (modern day, bipolar disorder and schizophrenia, respectively). He also outlined the course of the disorders, i.e., how these disorders progressed over time. Kraepelin's categorical classification system laid the foundation for the current classification systems, namely, *Diagnostic and Statistical Manual of Mental Disorders* (DSM) and *International Classification of Diseases* (ICD).

Before we describe these classification systems, let us know the benefits of a classification system and its challenges in abnormal psychology (Rosenberg & Kosslyn, 2011):

1.6.1 Benefits of a Classification System

- *A classification system provides a gist or a concise description of a disorder.* Rather than using lengthy descriptions, clinicians and researchers can describe a disorder in small number of words. For example, the term generalized anxiety disorder is enough to understand what it entails without a need to elaborate on its various constituents, such as, excessive worry, sleep disturbances, palpitations, chronic fatigue etc.
- *It helps to group certain specific cognitive, emotional, and behavioral symptoms into a unique configuration.* For example, a patient with a diagnosis of obsessive-compulsive disorder tells the clinician that the patient has a certain specific configuration of symptoms and either all or some of the symptoms will be present in him/her.
- *It provides information about the causes, course, and treatment of a disorder.* For example, presence of negative symptoms in a patient with schizophrenia implies that it is insidious, chronic, and so it will

have a longer course and will require a different type of treatment for a longer duration. If the patient reportedly also takes alcohol and/or other addictive substances like amphetamines, then the causes, course and treatment of schizophrenia will be different from a patient with schizophrenia who does not have a history of substance dependence.

- *A diagnosis based on a classification system enables an individual to seek treatment, support and benefits from the social institutions.* For example, a child diagnosed with dyslexia can seek special accommodations and support from school, such as, permission to learn only one instead of two languages, providing extra time and a scribe in exams, adjusting the eligibility criteria for admission etc.
- *A classification system can also provide guidance for dealing with medico-legal cases and to claim insurance benefit.* For example, instead of pursuing legal proceedings against an accused who is having intellectual disability, the court of law will deal the case under mental health act of the country based on diagnosis according to the classification system. Similarly, insurance companies also accept the client's claim for reimbursement for treatment of mental disorders on the diagnosis certified by the classification system.
- *A classification system also alleviates the fear of having an unknown, unnamed disorder in people.* That is, a diagnosis of people's condition gives them a sense of relief that they are not suffering from an unusual or unique problem. Rather, they have a disorder, which other people may also have. Further, once the diagnosis is made, more can be learned about the disorder, its causes, and its treatments.

1.6.2 Challenges of a Classification System

A classification system for mental disorders is very useful, but it also presents some challenges as described below:

- *Bias in Diagnosis:*

According to Meehl (1960), a diagnostic bias is a systematic error in diagnosis. It can occur due to factors such as sex, age, race, community etc. which may lead to a disproportionately high or low rates of diagnosis of a specific mental disorder. The clinician's unfamiliarity with the sociocultural background of patients may lead to misinterpretation of some behaviors as pathological, resulting in over-diagnosis. On the other hand, under-diagnosis may occur when the patient's reported symptoms cannot be found in the classification system being used, e.g., certain symptoms reported by some low-income Mexican Americans do not fit with the classification system currently used in USA (Schmaling and Hernandez, 2005). Further, the linguistic differences between the clinician and the patient may also cause an inaccurate assessment of the mental disorder (Kaplan, 2007). Thus, despite of a classification system, accurate diagnosis may still be a challenge.

- *Stigma of a Diagnostic Label*

A diagnostic label leads to loss of information and stigma for the patient. Once a person is diagnosed with a mental disorder, say schizophrenia, it becomes the most important source of information about the person, i.e.,

family, friends, colleagues as well as clinicians try to fit their view of that person within the framework of a patient with schizophrenia and ignore his/her other qualities as an individual. Once labelled as 'schizophrenic', the patient's personality characteristics and abilities become hidden behind that label and people seldom look beyond that label. Not only other people's views get influenced by the diagnostic label but even the patient's views of themselves may change. Due to self-fulfilling prophecy (a belief that a person with a given disorder behaves in a certain way), the person takes the role of the patient, for example, a child who has been diagnosed with a learning disability will stop taking interest in studies as "such children are sick and fail in the class in spite of their best effort." The patient sometimes hides the disorder due to fear of being ridiculed by others, blames self and evades treatment due to embarrassment associated with having a mental disorder (Corrigan & Watson, 2001).

- *Issues of Reliability and Validity*

The utility of a classification system is dependent on its reliability and validity. A classification system is said to be *reliable* if the results obtained from it are consistent over time. A classification system can have problems in reliability due to several reasons:

- (i) Lack of clarity in the criteria for disorders and so the clinician must use subjective judgement to determine if the symptoms reported meet the criteria.
- (ii) Disorders have a significant overlap and hence the clinicians find it difficult to make a distinction among them.

Though, agreement among clinicians may be one of the factors supporting the reliability of a measure, however, there is a word of caution here. That is, agreement among clinicians may not always lead to a valid diagnosis. For example, agreement over the role of witchcraft in causing mental disorders cannot be accepted as the correct diagnosis. Science does not follow the majoritarian perspective, thus endorsement of a viewpoint by majority of observers may not always be correct. Hence a classification system not only should be reliable, but it should also be valid, however, we have seen that reliability does not guarantee validity.

Validity in general means the instrument should measure what it purports to measure. A classification system is said to be valid if its categories show the characteristics of the condition that it is supposed to classify. Therefore, diagnostic criteria for each disorder should be unique. Further, diagnostic criteria should neither be too narrow nor too broad. If the criteria are too narrow, the prevalence (number of people diagnosed with the disorder in a given period of time) of the disorder will be very low. Since, the clinicians will find hardly any cases of a disorder with a very low prevalence, hence it will be difficult to conduct research to find useful information about the disorder, such as its course, gender ratio, etiology, and treatment. If the criteria, on the other hand are too broad, then the disorder will be very common and its criteria may include characteristic features which may indicate different yet related problems. Such criteria will make the classification system ineffective (Kutchins & Kirk, 1997).

Box 1.7 Time to Review:

- Differentiate between diagnosis and classification.
- Discuss the usefulness of a classification system.
- Identify the challenges of a classification system.

1.6.3 The Two Classification Systems: DSM and ICD

The two most used classification systems in the world are the Diagnostic and Statistical Manual of Mental Disorders (DSM) and International Classification of Diseases (ICD). While the DSM is published by American Psychiatric Association, APA and is majorly used in the United States, the ICD is published by World Health Organization, WHO and is used in several parts of the world. In India mostly the ICD is used. The DSM is in its 5th edition currently. It is a categorical classification system with diagnostic criteria for different psychological disorders, such as the kinds, number, and duration of relevant symptoms. The ICD is in its tenth edition and the 11th edition is set to be launched in January 2022. While DSM is a classification system specifically for mental disorders, ICD has other diseases and disorders in addition to mental disorders. It was constructed originally as a framework for collecting the health statistics. From ICD-1 to ICD-6, it classified causes of death. Later on, an effort was made to bring congruence between the DSM and ICD with respect to the criteria of mental disorders with substantial success. Currently, DSM-5 and ICD-10 can be used interchangeably while reporting research in prevalence of mental disorders.

DSM 5

You can see in Table 1.1 below the progression from DSM I to DSM 5, the current edition in practice.

Table 1.1: DSM I to DSM 5

DSM Edition	Introduction Year	Main Features
DSM I	1952	Addressed issues in clinical practice, no research focus, based on the psychodynamic theory
DSM I	1968	Included only minor modifications in DSM I, and like the first edition, had low reliability and validity
DSM I	1980	Followed an atheoretical approach, clearly defined criteria for disorders, introduced multiaxial system, having five axials for diagnosis and assessment of disorders, improved reliability and validity
DSM III R	1987	Revision of DSM III to introduce significantly greater reliability

DSM IV	1994	Introduced new disorders and revised criteria for certain disorders
DSM IV TR (Text Revision)	2000	No new addition, but included updated information about prevalence, prognosis, and co-morbidity and other factors related to disorders, followed the multi-axial classification with some changes
DSM 5	2013	Included subtypes and specifiers in the diagnosis, cultural and social context was emphasized

The 5th edition of DSM was launched in 2013. It is an improvement over its previous edition DSM-IV-TR which had the following limitations:

- *Clinicians must determine the clinical significance of the criteria*

The DSM-IV-TR uses subjective terms, such as, *clinically significant*, and *markedly* in its instructions to clinicians for making a diagnosis. It requires clinicians to determine the clinical significance of the enlisted symptoms and criteria.

- *Disorders are defined as categories and not as continua*

DSM-IV-TR is a categorical classification system, i.e., either a person has a disorder or does not have a disorder, with nothing in between. However, disorders exist on a continuum as continuous gradations. For example, two persons, A and B are diagnosed with schizophrenia, while person A is able to maintain the global adaptive functioning (personal, social, and occupational), person B suffers from delusions, hallucinations, avolition (lack of will), anhedonia (inability to experience pleasure) and is confined to his room, refusing to maintain personal hygiene, interpersonal relationships and an occupation. Clearly, there is a difference in the degree of schizophrenia in persons A and B and they should have different prognoses, course, and treatment plans.

- *Heterogeneity in diagnostic categories*

Heterogeneity is found in the group of patients diagnosed with the same disorder because DSM-IV-TR requires the patients to have some and not all the enlisted symptoms for the diagnosis. While heterogeneity may not be a problem by itself, but it is possible that heterogeneous groups may represent different types of the disorder and may have a different course, prognosis and etiology and thus may require different line of treatment (Messias & Kirkpatrick, 2001). Possibly, then DSM-IV-TR may be obstructing the path to research about new disorders (Malik & Beutler, 2002).

- *All the symptoms of a disorder have an equal weightage*

Each symptom in the enlisted criteria may not have equal importance but is given an equal weightage (Malik & Beutler, 2002). For example, in major depressive disorder, significant weight loss/gain or decreased/increased appetite and suicidal ideation, both are enlisted symptoms, but clearly suicidal ideation is much more important to be noted.

- **Arbitrariness in the number and duration of diagnostic criteria**

A specific number of symptoms for a specific duration must be present to fulfill the criteria for diagnosis of a disorder. The specified number of symptoms has no scientific basis and is arbitrarily chosen. For example, diagnosis of major depressive disorder requires presence of five symptoms. Suppose a patient reports four and not five symptoms, but has significant distress and is in clear need of clinical assistance. Since, he does not meet the criteria for five symptoms, should the clinician not diagnose and treat him?

- *Restrictive criteria for some disorders*

A nonspecific diagnosis labelled as 'not otherwise specified' (NOS) is given to the patients who do not meet the necessary criteria for a given disorder but are significantly distressed. Some of the disorders in DSM-IV-TR, like eating disorders have such restricted criteria that many patients do not meet the necessary criteria and hence remain undiagnosed despite distress and impairment (Sloan, Mizes, & Epstein, 2005). These patients are given the diagnosis of eating disorders (NOS) which not only hinders their assessment and treatment but also research work in the field of eating disorders.

- *Unnecessary classification of some mental health issues and medical disorders as mental disorders*

The number of disorders has steadily increased in DSM editions published since 1952 till date. DSM-IV-TR has classified more than 300 disorders. This inflation is not the result of discovery of new disorders but due to the issues of payment (Eriksen & Kress, 2005), that is, to get the reimbursement benefits, the patient must have a disorder classified in DSM. DSM has also begun to include medical disorders (e.g., sleep apnea) for the same reason, which are not mental disorders (Eriksen & Kress, 2005). Further, some medical conditions were included in the DSM as these could only be treated effectively with psychological treatment (Deckersbach et al., 2006). For example, irritable bowel syndrome (IBS) which is a gastrointestinal disorder with symptoms like stomach cramps, diarrhea, and bloating can be treated successfully with psychological treatment (Blanchard et al., 2006).

- *Social factors are not recognized explicitly*

In DSM-IV-TR, the diagnostic categories are based on the intraindividual (within the individual) conflicts rather than the conflict between individual and society. However, social factors such as, immigration; discrimination based on skin color, caste, religion, socioeconomic status; loss of job; failure in an exam may lead to depression (Caplan, 1995).

- *High level of comorbidity raises questions about validity of diagnostic criteria*

Comorbidity is found in at least fifty percent of the diagnosed cases (Kessler et al., 2005). Comorbidity raises doubts about the mutual exclusivity of the diagnostic categories. For example, most people (50% approx.) diagnosed with clinical depression are also diagnosed with anxiety disorder (Kessler et al., 2003). Such a high level of comorbidity implies that the two disorders may represent different forms of the same underlying condition. This makes the validity of the diagnostic categories doubtful.

- *Commonalities across diagnostic categories are ignored*

Commonalities are found across the diagnostic categories either because of comorbidity or because some disorders may share some of the symptoms. Disorders sharing some common symptoms can be classified under an umbrella term rather than as separate disorders with separately enlisted criteria. For example, internalizing and externalizing disorders have emotional and behavioral problems as the common underlying factor. Internalizing disorders are characterized by the over controlled and externalizing disorders are characterized by the under controlled emotions and behaviors. However, DSM-IV-TR has not given a categorization of these disorders based exclusively on emotions and behaviors and has left it for the clinicians to find commonalities among these disorders by themselves.

Despite several shortcomings, DSM-IV-TR remained the most widely used classification system for more than two decades and provided the firm basis for the new edition, the DSM-5.

Box 1.9 Time to Review:

- Critically evaluate the DSM-IV-TR.

According to Regier, Kuhl, and Kupfer (2013), changes from DSM-IV-TR to DSM-5 highlighted the importance of cultural and social context for clinical care and research applications. As the strong link between social environment and epigenetic mechanisms (non-genetic influences on genes that change the phenotypic expression of a gene), heritability, risk and resiliency factors became more evident, the diagnostic criteria for not all but many disorders are now accompanied by referenced findings for such factors. Additionally, cultural references are presented for the symptom expressions with an acknowledgement that a given symptom may be expressed more in a particular culture (e.g., European, Asian, or African etc.), and cultural syndromes are also provided.

The **key elements of a diagnosis** in DSM 5 is as follows (APA, 2013):

- 1) **Diagnostic Criteria and Descriptors** – Diagnostic criteria are the standard procedures for making a diagnosis. In addition, it includes severity indices (such as mild, moderate, severe, or extreme), and course specifiers (descriptive features, and course (type of remission – partial or full – or recurrent)- these indicate the current condition of the patient. If the full criteria of diagnosis are not met, it can be classified as “other specified” or “unspecified”. The clinical interview and clinical judgment facilitates the final diagnosis.
- 2) **Subtypes and Specifiers** – As the different individuals can manifest the same disorder in different ways so the DSM uses subtypes and specifiers to better characterize an individual’s disorder. *Subtypes* denote “mutually exclusive and jointly exhaustive phenomenological subgroupings within a diagnosis” (APA, 2013). For example, Enuresis is nocturnal only, diurnal only, or both. On the other hand, *specifiers* are neither mutually exclusive nor jointly exhaustive hence, more than one specifier can be given. For instance, major depressive disorder has a wide range of specifiers that can be

used to characterize the severity, course, or symptom clusters. The subtypes and specifiers can be distinguished by their number, while there can be multiple specifiers, there can be only one subtype.

- 3) **Principal Diagnosis** – In case of more than one diagnosis (comorbid disorders) a *principal diagnosis* is used. The reason for the in- or out-patient hood is the principal diagnosis which is also the main focus of treatment.
- 4) **Provisional Diagnosis** – When a clinician is unable to make a definitive diagnosis due to lack of enough information, however, at the same time, he/she can strongly presume that the full criteria will be met with more information and/time, a *provisional* specifier can be used.

DSM-5 Classification categorizes disorders into clusters based on shared physiological pathology, genetics, disease risk, neuroscientific and clinical findings.

DSM-5 diagnostic chapters

- Neurodevelopmental disorders
- Schizophrenia spectrum and other psychotic disorders
- Bipolar and related disorders
- Depressive disorders
- Anxiety disorders
- Obsessive-compulsive and related disorders
- Trauma- and stressor-related disorders
- Dissociative disorders
- Somatic symptom and related disorders
- Feeding and eating disorders
- Elimination disorders
- Sleep-wake disorders
- Sexual dysfunctions
- Gender dysphoria
- Disruptive, impulse-control, and conduct disorders
- Substance-related and addictive disorders
- Neurocognitive disorders
- Personality disorders
- Paraphilic disorders
- Other mental disorders

Box 1.10 Time to Review:

- What are the key elements of diagnosis in DSM-5?
- Differentiate between subtype and specifier with the help of an example.

ICD

According to the World Health Organization,

“ICD is the foundation for the identification of health trends and statistics globally, and the international standard for reporting diseases and health conditions. It is the diagnostic classification standard for all clinical and research purposes. ICD defines the universe of diseases, disorders, injuries and other related health conditions, listed in a comprehensive, hierarchical fashion that allows for: easy storage, retrieval and analysis of health information for evidence-based decision-making; sharing and comparing health information between hospitals, regions, settings, and countries; and data comparisons in the same location across different time periods” (<http://www.who.int/classifications/icd/en/>).

The ICD 10 was launched in 1990. It includes various Mental and Behavioral Disorders in Chapter V as given below:

- Organic, including symptomatic, mental disorders
- Mental and behavioral disorders due to psychoactive substance use
- Schizophrenia, schizotypal and delusional disorders
- Mood (affective) disorders
- Neurotic, stress-related and somatoform disorders
- Behavioral syndromes associated with physiological disturbances and physical factors
- Disorders of adult personality and behavior
- Mental retardation
- Disorders of psychological development
- Behavioral and emotional disorders with onset usually occurring in childhood and adolescence
- Unspecified mental disorder

There has been attempts at harmonization of DSM 5 and ICD 11 classification systems by the clinical and research fraternity so that it leads to a more compatible international statistical classification of mental disorders. It will help in achieving a unified diagnostic approach, understanding the etiological factors, and provide better care for individuals with mental disorders using appropriate interventions.

Box 2: Time to test your skills!

Fill in the blanks:

- i) A _____ is the identification of the nature of a disorder.
- ii) _____ is the systematic arrangement of information into groups or categories based on observations.
- iii) A German psychiatrist, _____ (1856-1926) developed the first modern classification system for classifying the mental disorders.
- iv) The number of axes in multiaxial classification is _____.
- v) In DSM-5, diagnosis can be noted as _____ or _____ if the full criteria are not met.
- vi) _____ denote mutually exclusive and jointly exhaustive phenomenological subgroupings within a diagnosis.
- vii) The abbreviation, ICD stands for _____.
- viii) The full form of DSM is _____.

Answers Key to Box 2. Time to Test your Skills:

- i) diagnosis,
- ii) classification,
- iii) Emil Kraepelin,
- iv) five,
- v) “other specified” or “unspecified”,
- vi) subtypes,
- vii) International Classification of Diseases,
- viii) Diagnostic and Statistical Manual of Mental Disorders

1.10 LET US SUM UP

In the present Unit, you learned about mainly how to define, diagnose and classify psychological disorders. This is very important as it signifies the first step towards understanding a disorder and accordingly specifying appropriate treatment and intervention measures for it. Towards this end, the concept of abnormality and normality were explained in detail. You also gained a perspective of the historical development of the understanding of psychological disorders ranging from ancient to the contemporary times. The classification system of psychological disorders was also reviewed with a detailed background of the DSM and ICD system.

1.11 KEY WORDS

Criteria: a principle or a standard by which something is judged or decided.

Normal: confirming to rules, standards, or a pattern.

Abnormal: not conforming to rule, deviating from a type, standard, contrary to system or law, irregular, unnatural.

Asylums: an institution where people with mental disorders were kept.

Trepanning: In the ancient period, hole/s were bored into the skull of the affected person to let out the mental illness causing evil spirit and thus, cured the person.

Exorcism: expulsion of evil spirits from a person or place.

Catharsis: release of repressed emotions that provides relief

Behaviourism focuses on the study of overt behavior rather than subjective experiences.

Humanistic approach emphasizes the role of free will, love, hope, creativity, values, meaning, personal growth, and self-fulfillment.

Diagnosis is the identification of the nature of a disorder.

A classification system provides a standard, which can be used to compare an individual's behaviour and psychological functioning to diagnose if they have a psychological disorder.

Subtypes denote mutually exclusive and jointly exhaustive phenomenological subgroupings within a diagnosis (APA, 2013).

Specifiers are neither mutually exclusive nor jointly exhaustive; and hence, more than one specifier can be given for a disorder.

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UNIT 2: THEORETICAL PERSPECTIVES IN PSYCHOPATHOLOGY I*

Structure

- 2.1 Learning Objectives
- 2.2 Introduction
- 2.3 Causes and Risk Factors of Psychopathology
- 2.4 Theoretical Perspectives in Psychopathology
- 2.5 The Biological Approach
- 2.6 The Psychodynamic Approaches
- 2.7 The Behavioural Approaches
- 2.8 The Cognitive-Behavioural Approach
- 2.9 Let Us Sum Up
- 2.10 Key Words
- 2.11 Answers to Self Assessment Questions
- 2.12 Unit End Questions
- 2.13 References and Suggested Readings

2.1 LEARNING OBJECTIVES

After studying this unit, you would be able to:

- *discuss the causes and risk factors for abnormal behaviour;*
- *elaborate upon the biological viewpoints and causal factors behind psychopathology;*
- *explain the psychodynamic viewpoint and causes to understand psychopathology; and*
- *discuss the behavioural and cognitive behavioural approaches to psychopathology.*

2.2 INTRODUCTION

Psychopathology, or identifying the causes for psychological disorders is a multifaceted endeavour. Researchers and clinicians have attempted to understand the abnormal behaviour from a variety of perspectives. No one viewpoint offers the “complete” conceptualization of psychopathology, that is why, current view of psychopathology integrates several viewpoints while making sense of abnormal behaviour and its treatment. In this unit and the next one, we will discuss some of the most influential theoretical perspectives and the probable causal factors identified by them. But, before that let us understand what is causation or etiology.

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2.3 CAUSES AND RISK FACTORS OF PSYCHOPATHOLOGY

Rothman, an American epidemiologist (1976, p. 588) defined a cause as “an event, condition or characteristic without which the disease would not have occurred”. A risk factor can also be a cause but all risk factors are not causes. A risk factor is the one that increases the chance of having a particular condition. Let’s understand this with an example. Ishaan’s dietary habits are not good as it includes sugary, fried and fatty foods; for the sake of simplicity, we will call it unhealthy diet and he is also overweight. Arjun has the same diet (unhealthy diet) but he is not overweight as he compensates for his calorie intake with his active lifestyle. Kabir has a healthy diet. His calorie intake is typical for someone of his age group but he is also overweight. Kabir suffers from hypothyroidism which results in slower metabolism that burns fewer calories. Here, we can clearly see that unhealthy diet is not necessarily a reason behind being overweight. According to Rothman’s definition of a cause (as mentioned above), we have to be sure that the condition wouldn’t have happened without this specific factor. So, in Ishaan’s case we can say that his unhealthy diet led to him being overweight. However, if we talk about the general condition, it might not be so clear. Unhealthy diet definitely increases the chance of being overweight but if we look at it carefully we can see that what’s causing weight gain is the difference between calories intake and calories burned. Since an unhealthy diet may increase the calorie intake, it eventually may increase the chance of gaining too much weight. Thus, the term that should be used here is “risk factor”.

Now let us understand about what causes psychological disorders or the etiology of psychopathology. Understanding the mental distress or the maladaptive behaviour of the individual will help us in prevention and proper treatment of the same. However, complexity of human behaviour makes it the most challenging one. Thus, many researchers have started using the term risk factors (variables correlated with an abnormal consequence) rather than causes (Rutter, 2006).

Various terms can be used to specify the role a particular factor may play as an etiological or causal factor in abnormal behaviour displayed by an individual. Some of these are described here.

- **Necessary cause** can be understood as a condition that must exist for a disorder to occur. For instance, general paresis (a degenerative brain disorder) cannot develop unless a person has contracted syphilis previously. Many mental disorders do not appear to have a necessary cause.
- **Sufficient cause** is a condition that guarantees the occurrence of a disorder. For example, hopelessness is understood to be a sufficient cause of depression or the fact that if hopelessness occurs then depression will also occur. However, it is important to note here that a sufficient cause may not be a necessary cause. So, we can say that hopelessness is not a necessary cause of depression; there are other causes or causal factors as well that lead to depression.

- **Contributory causes** are the ones that increase the probability of the occurrence of a disorder but they are neither necessary nor sufficient for the disorder to occur. For example, parental rejection may increase the probability of a child having difficulty in dealing with close intimate relationships later in life. Here, parental rejection is a contributory cause for difficulties that the individual may develop later in life, but it is neither necessary nor sufficient.

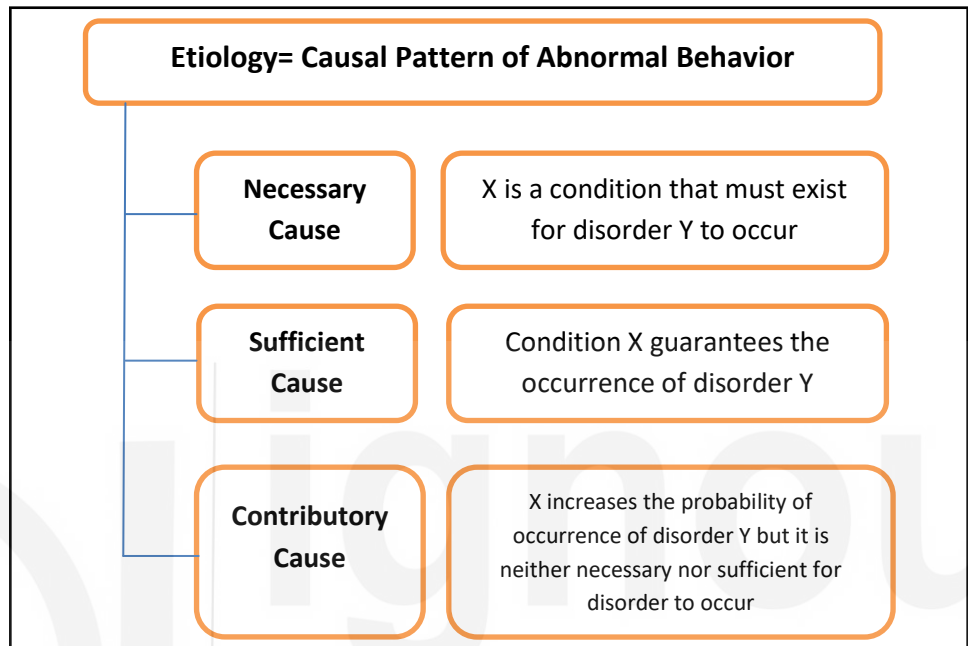


Fig. 2.1 Types of Causes: Necessary, Sufficient and Contributory

Another important consideration while understanding the causes is the time frame in which they operate. There are **distal causal factors** which occur relatively early in life but manifest their effects after many years. For instance, if we take the above given example only, parental rejection or loss of a parent early in life may become a distal contributory cause predisposing an individual to depression later in life. There are **proximal causal factors** which operate shortly before the occurrence of symptoms of a particular disorder. For example, an event or a condition may prove too much for someone, triggering the onset of a disorder; divorce could lead to depression. A **reinforcing contributory cause** is the one that maintains the already occurring maladaptive behaviour. For instance, some secondary gain like sympathy, relief from unwanted responsibility due to illness could be some of the examples. Another interesting example here could be that when a person has depression, their behaviour alienates them from friends and family, which further enhances their sense of rejection reinforcing the existing depression (Joiner & Timmons, 2009).

For most forms of psychopathology, we do not have an answer as to what is a necessary or a sufficient cause behind them, but we do have a sound understanding of various contributory causes. We have a fair understanding of proximal, distal and reinforcing causal factors as well but the picture is further complicated by the fact that what is a proximal cause at one stage may also serve as a distal contributory cause, predisposing the individual to a disorder in later life. For example, loss of a parent can be a proximal cause

for grief reaction of a child but may also serve as a distal contributory cause for later if the child develops depression as an adult.

Another useful categorization is grouping them into predisposing, precipitating, and perpetuating factors. **Predisposing factors** are those that determine the vulnerability to other causes that are present at the time of illness; something that puts the individual at risk of developing an illness or a problem, for instance, genetic endowment, some birth trauma, psychological factors during infancy or childhood. **Precipitating factors** are the ones that occur shortly before the onset of a disorder, so they trigger the onset of a problem. These can be physical (brain injury caused by accident) or psychological (loss of a loved one) in nature, or even a combination of the two. **Perpetuating factors** are the ones that maintain a disorder once it occurs. Understanding of perpetuating factors plays an important role while deciding a line of treatment for the individual.

2.4 THEORETICAL PERSPECTIVES IN PSYCHOPATHOLOGY

Three major shifts have occurred to understand psychopathology. First is the biological approach, which is also considered as the dominant force in psychiatry and has been quite influential in clinical science. Second is the psychological approach - psychodynamic, behavioural and cognitive-behavioural approach. Third is the sociocultural approach which is also becoming quite influential among psychologists and psychiatrists.

Given the fact that human behaviour is quite complex, none of the approaches are either complete or equally valid to explain all aspects of human behaviour. Hence researchers and practitioners have agreed upon that an integrated approach- biological, psychological and sociocultural is most likely to provide us with a more holistic understanding of various forms of psychopathology. Thus, the need for a biopsychosocial approach which believes that all these factors interact and play a role in psychopathology and its treatment is the need of the hour. In this unit, we will discuss different theoretical approaches and their key tenets to understand psychopathology.

Self Assessment Questions 1

1. If A is necessary for B (necessary cause) then B will never occur without A. True / False.
2. A _____ cause is the one that maintains the already occurring maladaptive behaviour.
3. _____ factors are those that occur shortly before the onset of a disorder, triggering its onset.

2.5 THE BIOLOGICAL APPROACH

The biological approach understands mental disorders as mental diseases and thus views them as disorders of central nervous system, autonomic nervous system, and endocrine system. These disorders could be inherited or caused by some pathological process. However, explanations to various medical conditions cannot be very simplistic, so various psychological and

sociocultural factors along with biological are at play. In this unit, we will focus on four categories of biological factors: (1) neurotransmitter and hormonal abnormalities in brain or other parts of central nervous system, (2) genetic vulnerabilities, (3) temperament, and (4) brain dysfunction and neural plasticity. These categories often interact with each other and different factors end up playing more or less important roles in different individuals.

(1) Neurotransmitter and hormonal imbalances

Human body is made up of a complex network of neurons which serve as the building blocks of the nervous system. They transmit information to and from the brain and throughout the body. For brain to function effectively, neurons should be able to communicate with one another efficiently. When a neuron spikes, it releases neurotransmitter (a chemical that travels a tiny distance across synapse before reaching other neurons) which results in communication with hundreds of other neurons. The biological model believes that imbalances in neurotransmitters (in the brain) can result in abnormal behaviour. Recent researches suggest that it could be an important cause but only a part of the causes involved in the etiology of disorders. Factors affecting neurotransmitter imbalance may include:

- There can be excessive production and release of the neurotransmitter substance in the synapses. So, it will end up causing excess in levels of that particular neurotransmitter.
- Disruption or dysfunction of normal processes may lead to deactivation of the neurons after their release into synapse. Either of the two processes could be involved in it. They are: (a) reuptake of released neurotransmitter from synapse into axon endings, or (b) degradation by certain enzymes present in synapse and presynaptic axon endings.
- Receptors in postsynaptic neuron could be either abnormally sensitive or abnormally insensitive.

Different disorders may occur because of different patterns of neurotransmitter imbalances in various areas of the brain and medications are used to correct these imbalances. For instance, Prozac is an anti-depressant drug which is used to slow down the reuptake of neurotransmitter serotonin so that it can remain in the synapse for a longer duration. Various neurotransmitters have been discovered over the years but the ones that are widely studied in the context of psychopathology are norepinephrine, dopamine, serotonin, glutamate, and gamma aminobutyric acid (GABA). Dopamine has been implicated in schizophrenia, addictive disorders; GABA in anxiety disorders; norepinephrine in emergency reactions of the body; serotonin in disorders related to mood, depression, and anxiety as well.

Psychopathology has also been linked to hormonal imbalances. Hormones are chemical messengers which travel in our bloodstream to tissues or organs. They are secreted by endocrine glands in our bodies and affect various processes such as growth and development, metabolism, mood, sexual function, reproduction etc. Our central nervous system is linked to the endocrine system via effects of hypothalamus on the pituitary gland. Malfunction of this system can be responsible for different forms

of psychopathology. For instance, one such important interaction occurs at the hypothalamic-pituitary-adrenal axis (refer to Figure 2.2). Prolonged stress may lead to secretion of adrenal hormone cortisol, which may elevate blood sugar levels and increase metabolism. These changes can be helpful in sustaining prolonged bodily activity but at the cost of immune system activity. Malfunctioning here has been implicated in depression and post-traumatic stress disorder.

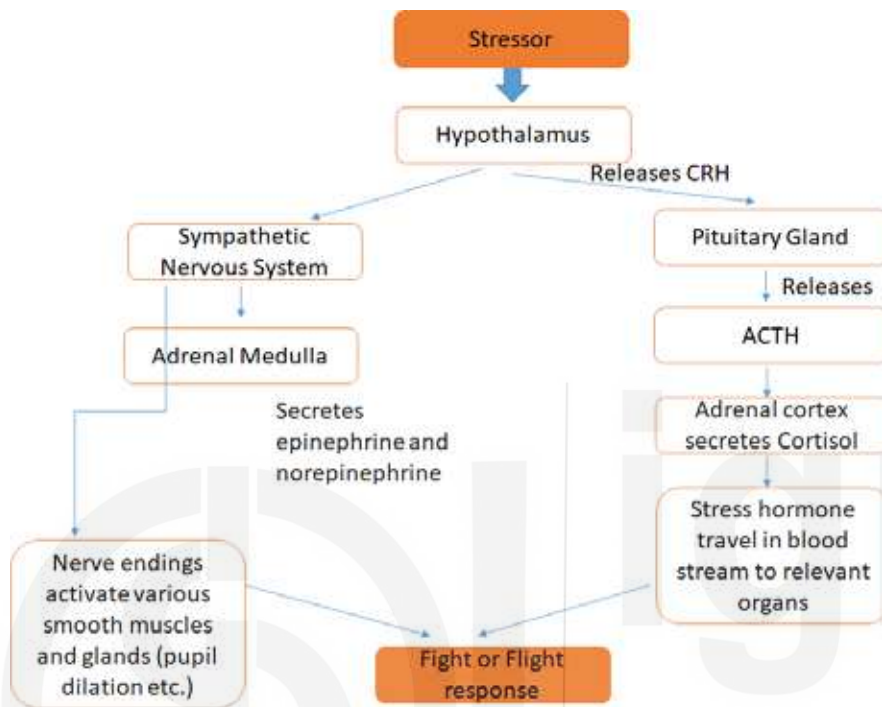


Fig. 2.2 Two pathways, Sympathetic-Adrenomedullary System (SAM) and Hypothalamic-Pituitary-Adrenocortical Axis (HPA), activating fight or flight response.

(* CRH is corticotrophin-releasing hormone; ** ACTH is Adrenocorticotrophic hormone)

(2) Genetic factors

A healthy human cell has 46 chromosomes which contains the genetic material with hereditary plan encrypted for each individual. Basically genes are carriers of information that we inherit from our parents and ancestors. Behaviour or any mental disorder is not exclusively determined by genes or genetic abnormality but they definitely have a role to play (Plomin et al., 2008).

As discussed, we have 23 pairs of chromosomes (46 in total), one of each pair from the mother and the other one from father. 22 pairs of these determine our general characteristics and the remaining pair is the sex chromosome which determines an individual's sex. In females, it is designated as XX chromosome and XY in males. Abnormalities in the structure or number of these chromosomes can be one of the causes for disorders. For instance, there is a trisomy in the 21st chromosome in Down syndrome. This extra chromosome is considered as the main cause of the disorder which involves intellectual disability, flat face, slanted eyes etc. We often hear a statement that "the gene" that is involved in a particular disorder has been discovered.

It is important to note here that vulnerabilities to mental disorder are usually polygenic in nature, that is, they are influenced by multiple genes, not just one (Kendler, 2005).

Two terms that are important to be discussed in this context are genotype and phenotype. **Genotype** is a person's total genetic endowment and except for identical twins no one begins life with same endowment. **Phenotype** involves the observable characteristics of an organism that result from the interaction of genotype (genetic inheritance) with the environment. Phenotype may keep changing throughout the life of an individual because of various environmental and physiological changes in our life time. Sometimes these genotypic vulnerabilities do not exert their effect on phenotype until later. For instance, children with genetic vulnerability to phenylketonuria (PKU) react differently to foods with phenylalanine (as they cannot metabolize food with phenylalanine) than their so-called normal counterparts. If the child carrying PKU gene is not given the food with phenylalanine he/she will not develop the disorder despite being predisposed to it genetically. Then there are times when genotype may shape the environmental experiences early in life, and this may affect the phenotype in turn. For example, a child genetically predisposed to aggressive tendencies may be rejected by his peers; this in turn may lead the child to further associate with similar aggressive peers later in life leading to a strong possibility of developing a pattern of delinquency.

Now let us pay attention to the methods for determining genetic influences. Behaviour genetics have proposed three primary methods that we will talk about here- the family history method, the twin method, and the adoption method. The *family history method* identifies the degree of risk of relatives developing mental disorders that other family members suffer from. The investigator observes samples of relatives of each proband (carrier of the trait or disorder) to determine if the incidence increases in proportion to the degree of hereditary relationship. The incidence of the disorder in a normal population is compared with its incidence among relatives of the proband (Jang, 2005). Studies carried out on people with bipolar disorder demonstrated that first-degree relatives of people with bipolar disorder are at a higher risk for related mental disorders like bipolar I, bipolar II, unipolar and schizoaffective disorders. However they were not at an increased risk for schizophrenia (Berrettini, 2000).

Another method used is *twin studies*. Identical twins (monozygotic twins) are siblings who have the same genotype. They are the best indicators of whether biology affects traits and psychopathology in humans. Fraternal twins (dizygotic twins) share half their genes with each other. They are not as optimal as identical twins to decipher the degree of genetic influence but they are a good basis for comparison with identical twins. Fraternal twins are like first degree relatives, except for the fact that they share the exact same age like identical twins. Now, if biology has a greater role to play than environment then identical twins should develop psychopathology similar to each other, more so than the fraternal twins. But, it is also possible for identical twins to express different phenotypes for the same genotypes. So, even though the identical twins share the same genetic make-up, they may have different experiences which may shape their personality, behaviour and psychopathology (Hughes et al., 2005).

The third method is the *adoption studies*. Here, the prevalence of psychopathology in adopted children is examined as a result of psychopathology in their biological parents and adoptive parents. A genetic influence is suggested if there is a significant association between psychopathology in the adopted children and their biological parents. For certain disorders such as schizophrenia, anxiety, mood, twin studies and adoption studies have confirmed significant genetic effects but they have also equally emphasized on the environmental effects which may not just include family environment but also the prenatal environment of the child. With the revolution in molecular genetics, newer methods such as linkage analysis and association studies have started contributing to our knowledge about the exact location of genes which could be contributing to a mental disorder.

(3) Temperament

Temperament refers to stable, early appearing individual differences on our behavioural tendencies that have a constitutional basis (Goldsmith et al., 1987). When we talk about difference in temperament of babies, we are basically meaning that they show differences in their arousal and emotional response to different stimuli and the way they approach or withdraw from these situations. These factors are influenced by genetic influences but prenatal and postnatal environmental factors play a role in their development (Goldsmith, 2003). One of the most common birth difficulty associated with learning disabilities and behavioural disorders is low birth weight. Prenatal conditions that can lead to premature birth include nutritional deficiencies, drugs, exposure to radiation, emotional distress in mother etc. Socio-economic status could also be related to birth difficulties. Approximately five dimensions of temperament have been identified, such as fearfulness, irritability and frustration, positive affect, activity level, and attentional persistence and effortful control. They are related to some important dimensions of adult personality- neuroticism, extraversion, and constraint (conscientiousness). For example, a child with fearful temperament may eventually become conditioned to 'fear situations' in which fear is provoked and later the child may learn to avoid entering such situations or end up fearing social situations; thus developing a risk for anxiety disorders.

(4) Brain dysfunction and neural plasticity

Our knowledge about brain structure has gradually increased with advances in neuroimaging techniques such as Computed Tomography (CT) and Magnetic Resonance Imaging (MRI). For instance, neuroimaging in patients with schizophrenia shows dilated cerebral ventricles and reduced frontal lobe density, indicating that origin of schizophrenia may have some neurodevelopmental basis. Neuroimaging has also helped us in distinguishing between different types of dementia. These techniques have also shown that genetic programs for brain development are not very rigid and there is neural plasticity- flexibility of the brain in making changes in organization and function as a response to prenatal, postnatal experiences, stress, diet, diseases etc. So, the existing neural circuits can be modified or new ones can be generated (Kolb et al., 2003).

Impact of Biological Perspective

Biological perspective has had an important role to play in our understanding of human behaviour. Its emphasis on the role of biochemical factors and innate characteristics has provided useful insights for both normal and abnormal behaviour. The developments in pharmacotherapy and drugs have further solidified faith in this model as they seem to have immediate results than other available therapies.

Self Assessment Questions 2

1. Prolonged levels of stress may secrete adrenal hormone _____, increasing metabolism and elevating blood sugar level.
2. Trisomy of 21st chromosome can result in _____.
3. Genotype is the total genetic make-up of an individual. True / False.
4. Define temperament.

2.6 THE PSYCHODYNAMIC APPROACHES

Psychoanalytic perspective originated in the work of Sigmund Freud and emphasized the role of unconscious psychological processes, for instance, wishes and fears of which we are not completely aware. It believes that childhood experiences have an important role to play in shaping the personality of an adult, normal or abnormal. Psychoanalytic perspective has evolved considerably since then and now included newer and more innovative approaches and is called as psychodynamic approach. Although very popular, various aspects of psychoanalytic theory have been controversial. Let's discuss the tenets and ideas of this theory.

(1) Freud's Psychoanalytic Theory

Freud introduced a topographic model of the mind, according to which the mind could be divided into three regions: conscious, preconscious or subconscious, and unconscious. The conscious part represents a smaller area, holding the information that you are focusing on at this moment. The preconscious contains material that is not conscious right now but is capable of becoming conscious if attention is directed towards it. *The unconscious* is a much larger part that contains anxiety-producing material (such as hurtful memories, forbidden desires) which has been repressed (held out of conscious awareness). However, unconscious material seeks expression through dreams, slip of tongue etc. Freud believed that it is important to bring such unconscious material to conscious awareness and integrate it or else it may lead to irrational and maladaptive behaviour.

Structure of Personality: Id, Ego, and Superego

Freud theorized about three important components of an individual's personality- id, ego, and superego. It is the interaction of these that drives human behaviour. The id has been considered as the seat of instincts, impulses and drives and appears in infancy. It is unconscious and operates on the pleasure principle. It is concerned with immediate gratification of instinctual needs without any consideration about morality. Freud divided id's instincts into two- life and death instincts. Life instinct (Eros) involves those that are crucial for pleasurable survival such as eating or the drives that

are primarily sexual in nature. Death instinct (Thanatos) is our unconscious wish to die, as death puts an end to all the everyday life struggles and misery. It indirectly represents itself through aggression.

The ego represents the logical and reality-oriented parts of the mind (operates on the reality principle). The ego ideally tries to mediate between the demands made by the id and external world realities (for instance, finding an appropriate time and place to fulfil a need). Along with fulfilling id's demands, ego ensures the well-being and survival of the individual. It includes defensive, perceptual, intellectual-cognitive and executive functions.

The demands made by id (especially the sexual and aggressive strivings) are at a conflict with the norms and rules of society. As children grow, they learn the rules that society and parents have set for them and this leads to the emergence of superego. It includes internalized taboos, moral values, prohibitions, sense of right and wrong from the society, ego ideals, spiritual ideals, and conscience. Gradually it becomes the inner control system that tries to deal with the unrestrained desires of the id.

Our personality reflects the interplay of these three psychic structures but it may differ from individual to individual. Often a major reason for inner mental conflicts is that these systems strive for different goals and if these intrapsychic conflicts remain unresolved, it may lead to mental disorder(s). When the id predominates, it may result in an impulsive personality. Dominance of superego may result in a restrained and over-controlled personality. With a strong ego, a more balanced set of personality may develop (Eagle, 2011). If we personify the ego, it's like a slave to three hard taskmasters- id, superego and the external world. Its job is to please all the three, thus is constantly under pressure of displeasing the other two. It is believed that ego is more loyal to id, but superego keeps a close watch on all the moves made by ego and thus inducing feelings of guilt and anxiety. In order to overcome this, the ego employs defense mechanisms

Anxiety and Defense Mechanisms

Anxiety can be defined as the generalized feelings of fear and apprehension. According to the Freudian view, anxiety plays an important role in all forms of psychopathology and it is present as a symptom in various neurotic disorders. For instance, if anxiety is repressed it may get transformed into and manifested in other overt symptoms. Freud used the term *conversion hysteria*- symptoms are an expression of repressed sexual energy converted into bodily disturbances (conflict over masturbation might be "solved" by developing a paralyzed hand). It is important to note here that it happens unconsciously.

Box 2.1 Types of anxiety

- *Reality anxiety*: anxiety caused from actual dangers
- *Neurotic anxiety*: it is caused when id's impulses are threatening to break through ego into behavior that will be punished.
- *Moral anxiety*: resulting from feelings of guilt.

It has been seen that ego can cope with objective anxiety through various

rational measures. Both neurotic and moral anxiety are difficult to deal with, especially using the rational measures, it could be because they are unconscious in nature. Thus, ego resorts to protective measures that help the individual in dealing with anxiety; these are called as ego-defense mechanisms. These are the mechanisms that we use unconsciously and automatically when we feel threatened (Cramer, 2006). Although they help us in dealing with anxiety, there is a cost that is involved here- all ego defences involve distortion of reality to some extent. A defense mechanism may become pathological only when its persistent use leads to maladaptive behaviour resulting in adverse effects on the person's physical and/or mental health. Some of these are described in Table 2.1.

Table 2.1 Defense Mechanisms

Mechanism	Example
Repression: preventing painful thoughts from entering conscious awareness	A child, who has faced abuse by a parent during childhood, has no memory of these events later but has trouble forming relationships.
Regression: retreating to an earlier developmental stage when faced with a difficult situation	When we are ill or sick, we may act helpless and behave as if someone else will take care of us like a young child or an infant.
Denial: refusing to believe an unpleasant reality	Not accepting the death of a loved one and behaving as if they will come back or is alive.
Displacement: discharging pent-up feelings on less dangerous or powerful objects than those whose aroused the feelings	A man whose boss yelled at him in the office mistreats his pet at home or initiates an argument with his wife.
Projection: attributing one's negative or unacceptable feelings to others	A man who is aggressive ignores his own impulses and instead incorrectly believes that his friend has aggressive tendencies.
Reaction formation: suppressing unacceptable impulses and adopting seemingly exaggerated opposite behaviour	A parent who resents having children may shower them with lots of gifts and love.
Rationalization: process of finding logical reasons for unacceptable behaviours or thoughts	A fanatical racist may use ambiguous words and sections from the scriptures to justify his hostility towards other groups.
Sublimation: channelling frustrated sexual energy into substitutive, socially acceptable activities	A person who is very angry at someone may start redesigning her drawing room or engage in painting.

Neurosis has been understood as the conflict between ego and id whereas psychosis is the same conflict along with breakdown of outer reality and collapse of ego identity (Mineka et al. 2017). For people with psychotic tendencies inner experience of the outer world is oppressive.

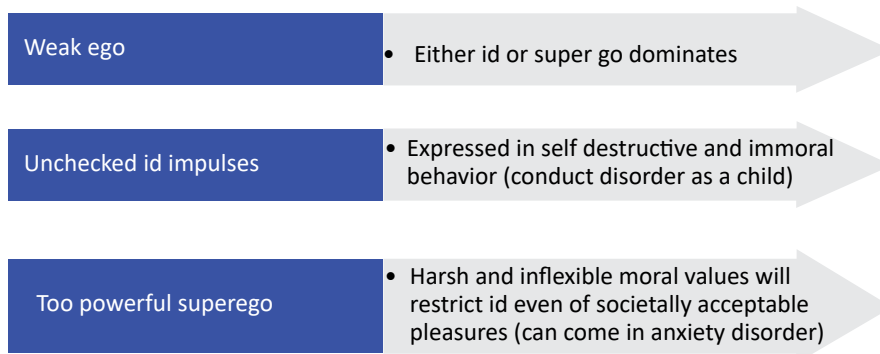


Fig. 2.3 Some of the Reasons for Adult Abnormality

Psychosexual stages of development

Freud conceptualized five psychosexual stages of development that all of us pass through from infancy to puberty. Each stage has its mode of sexual gratification and a unique challenge to overcome. Frustration or over-gratification during a stage results in ‘fixation’ at that stage. Fixation is the persistent and inappropriate attachment to an early psychosexual object or mode of gratification. These stages are as follows:

- Oral stage (infancy to 2 years): during this stage, mouth is the principal erogenous zone and the greatest source of satisfaction is sucking.
- Anal stages (2-3 years): anal stimulation provides the source of pleasure especially during this time when toilet training is in process and there is an urge for both elimination and retention.
- Phallic stage: (3-5 or 6 years): self-manipulation of the genitals provides the major source of pleasure during this stage. At this stage, they also begin to make differences between males and females. This stage is also characterized by Oedipus and Electra complex.
- Latency: (6-12 years/puberty): during this stage, the child is preoccupied with developing skills, intellectual pursuits, and getting involved in various social activities. Here, the sexual motivations lie dormant.
- Genital stage (Puberty onwards): sexual relations provide the deepest feelings of pleasure.

As mentioned above, inappropriate gratification at any of the stages may lead to fixation. For example, inadequate oral gratification may lead to smoking, drinking, biting fingernails (some form of oral stimulation) as an adult. Thus, the aim is to receive as much instinctual gratification as possible with minimal punishment and guilt.

Table 2.2 Some Adult Personality Characteristics Associated with a Failure to Progress through Psychosexual Stages of Development

Developmental Stages	Associated adult personality characteristics
Oral	Dependence, Depression

Anal	Obstinacy, Obsessive-compulsive behaviours, Sadomasochisms
Phallic	Gender identity issues, Antisocial personality
Latency	Inadequacy, Excessive self-control
Genital	Identity diffusion

(2) Newer Psychodynamic Perspectives

Freud paid a lot of attention to id- its nature, demands, manner in which it can be transformed etc. He also focussed on the role played by conscience but paid relatively less attention to the ego. Later theorists developed basic Freudian ideas, paid attention to ego and expanded in different directions.

Ego Psychology

Anna Freud and other second generation psychoanalysts were much concerned with ego and its function as it is the “executive” of personality. They also elaborated upon the concept of ego-defense mechanisms. Thus, psychopathology develops when ego doesn’t make use of adequate and appropriate defense mechanisms while facing internal conflicts.

Erik Erikson proposed a psychosocial theory of development which suggests that an individual’s personality develops throughout the lifespan, departing from traditional Freudian view that personality is fixed in early years of life. Erikson emphasized on the importance of social relationships at every phase and stage of life. Eight psychosocial stages of personality development were identified each of which represents a conflict or a developmental task (Refer Table 2.3). In order to develop a healthy personality successful completion of the task at each stage is important.

Table 2.3 Summary of Erikson’s Psychosocial Stages of Development

Stage	Conflict	Resolution or Virtue	Existential question	Culmination in old age
Infancy	Trust vs. Mistrust	Hope	Can I trust the world?	Appreciation of interdependence, relatedness and independence
Early childhood	Autonomy vs. Shame	Will	Is it okay to be me?	Appreciation of the cycle of life, from integration to disintegration
Play age	Initiative vs. Guilt	Purpose	Is it okay for me to move, act and do things?	Humor; empathy; resilience
School age	Industry vs. Inferiority	Competence	Can I make it in the world?	Humility; acceptance of course of one’s life and unfulfilled hopes

Adolescence	Identity vs. role Confusion	Fidelity	Who am I? What can I become?	Sense of complexity of life; merging of sensory, logical, and aesthetic perception
Young adulthood	Intimacy vs. Isolation	Love	Can I love someone?	Sense of complexity of relationships; value of tenderness and loving freely
Adulthood	Generativity vs. Stagnation	Care	What can I give others?	Caring for others, and agape, empathy and concern
Old age	Ego Integrity vs. Despair	Wisdom	On the whole, how have I been?	Existential identity; a sense of integrity strong enough to withstand physical disintegration

Source: Adapted from <https://sites.google.com/site/erikeriksondl825/home/stages-of-psychosocial-development>

Failure or unsuccessful achievement at each stage can lead to various problems as an adult. Failure at the first stage (basic trust vs. mistrust) can result in lack of trust and can bring about a sense of fear regarding inconsistencies that exist in the world. Heightened insecurity, anxiety and overall mistrust in the world can be a result (Heffner, 2001). The aim of the second stage (autonomy vs. shame) is to develop self-control without losing one's sense of self and self-esteem (McLeod, 2008). Those who fail at the third stage (initiative vs. guilt) may possess feelings of guilt, self-doubt, and lack of initiative. At the fourth stage (industry vs. inferiority), if the children are encouraged and assisted they develop conscientiousness and a positive sense in their capability to formulate and achieve their goals. But, discouragement or ignorance may make the child feel inferior, doubting his abilities and always following others around with lack of motivation (Heffner, 2001).

The fifth stage (identity vs. role confusion) is the period when the child is developing a strong sense of self, feeling of independence and control. Failure at this stage can make them unsure of their beliefs, making them apprehensive about themselves, their future and their identity. Unsuccessful achievements at the sixth stage (intimacy vs. isolation) may result in individual avoiding intimacy, being scared of commitments and thus may suffer in isolation leading to depression in certain cases (McLeod, 2008). If the objectives of stage seven (generativity vs. stagnation) are not achieved, we may become idle and feel lifeless and meaningless. At the eighth stage (ego integrity vs. despair), if we see our lives as fruitless, unaccomplished, and guilty, we may become displeased life in general, be angry with

ourselves, often leading to hopelessness and eventually depression (Heffner, 2001).

Object-Relations Theory

Another psychodynamic perspective is object-relations theory which was developed in the 1930s and 1940s by theorists such as Melanie Klein, Margaret Mahler, W. R. D. Fairburn, and D.W. Winnicott. They talk about the individual's interaction with real and imagined people (understood as external and internal objects) and relationships we experience between our internal and external world (Engler, 2006). Here, object refers to the symbolic representation of another person in the infant's or child's environment (most often a parent). It is through the process of introjection (unconscious process by which we incorporate characteristics of another person or object in our apparatus), we symbolically end up incorporating important people in our lives. For example, a child might internalize images of a punitive and demanding father; this image then may become a harsh self-critic, influencing how the child may behave further. These objects could also split off from the ego and maintain a separate independent existence; this may give rise to various inner conflicts as now the person has to 'listen' to and 'follow' various commands and therefore may not lead an integrated life.

Mahler (1971) theorized that young children do not differentiate between self and object, so the first 3 years of life are based on a symbiotic relationship but a successful completion of separation-individuation is necessary for achievement of personal growth and maturity. Otto Kernberg (1996) theorized that people with borderline personality are unable to achieve a stable identity (self) because they cannot integrate pathological internalized objects. Due to their inability to structure their internal world in a way that people can have a balance or a mix of both good and bad traits, they perceive the eternal world also in extremes (either good or bad).

Interpersonal Perspective

Another set of psychodynamic theorists emphasized that we are social beings and a major part of what we are is a product of our relationship with others. So, they believe that psychopathology somewhere is rooted in the maladaptive tendencies we have developed while dealing with our interpersonal environments. This focus on social and cultural factors in the psychoanalytic thought was introduced by Alfred Adler (1870-1937).

According to Adler, people are motivated by desire to belong to others and a group and it is the future goal of attaining power which causes neurosis (not the sex drive). When a person is thwarted and discouraged, he/she will display counterproductive behaviors that seem like defeat, withdrawal, and competition. Adler asserted that all of us succumb to disease in the organ that is less developed, the one that is 'inferior' from birth and the environmental demands play a huge role on the inferior organ and the way in which the individual would adapt to life. He contended that these feelings of inferiority are not a sign of abnormality, rather a cause of improvements in humans. To summarize his view, it is important to understand personal life organization- birth order, social context and other dynamics such as parent-child interactions- how it has influenced self-worth, acceptance, and expectation. With this the individual can gradually begin to accept the

emotions they have in relation to the events they experience as a child.

Erich Fromm (1900-1980) paid attention to the orientations or dispositions that develop from assimilation of individual's character with social factors and his relation with the society. These are- (i) the receptive character (always expect help from others), (ii) the hoarding character (outside world is perceived as a threat and sense of security comes from keeping things to themselves), (iii) the exploitative character (acquiring things by force), (iv) the marketing character (their success depends on 'how well they can sell themselves'), (v) the productive character (the healthier type of the lot). We are supposedly a blend of all these five characters but one or two may become prominent than others. When these orientations are maladaptive, they serve as bases for psychopathology.

Karen Horney asserted that 'femininity' was a product if culturally determined social learning and social factors are at genesis of neurosis. She suggested that normal growth can be blocked by basic anxiety which may stem from needs not being met (childhood experiences of loneliness or isolation). She mentioned three types of self in her theory- actual self is the one that experiences things around; real self that works as the guiding principle for healthy integration of human personality; and idealized self has the glorified images and is a major source of neurotic claims.

Attachment Theory

The attachment model of psychopathology as developed by Bowlby (1973; 1980) like other psychodynamic theories focuses on early parent child relationships. Bowlby seemed to be interested in the actual characteristics of the relationship, thus relied on the observational studies rather than analysing retrospective reports of adults. The theory suggests that if parental behaviour fails to make a child feel safe, secure and trusting in times of need, then the child will have issues in regulating emotions and may develop a negative, 'insecure' view of themselves and others. This also puts children at risk for developing psychological disorders (Greenberg, 1999).

Impact of Psychodynamic Approaches

One of the most important contributions of Freudian psychoanalysis is that it brought intrapsychic conflict and role of unconscious to the fore in understanding psychopathology rather than emphasizing only on genetic factors or brain pathology. He also developed two of the major psychoanalytic techniques, free association and dream analysis, to make sense of both conscious and unconscious aspects of an individual's life. It was through psychoanalytic theory that sexual factors received attention in human behaviour and mental disorders. Although, it would be important to note here that Freudian usage of sex drive was not limited or narrow in definition. Psychodynamic viewpoint- Freud and his successors also gave a lot of importance to early childhood experiences in the development of both normal and abnormal personality. The idea that ego defense mechanisms are used by all of us to cope with difficult problems in life became a factor of realization that similar psychological principles apply to both normal and abnormal behaviour, so, it is about the usage, intensity and the context sometimes that is the deciding factor.

Traditional psychoanalysis has always been attacked for various reasons such as its failure as a scientific theory to explain abnormal behaviour; its inability to provide scientific evidence to support some of its assumptions. But, it has been particularly criticized for its emphasis or rather overemphasis on sex drive, for pessimism, giving too much importance to unconscious and its process and for its condescending view of women. Later psychodynamic perspectives have tried to answer some of its criticisms by expanding on the traditional psychoanalytic ideas. For instance, Bowlby's attachment theory has generated massive research evidence to support its basic claims about normal and abnormal child development and adult psychopathology (Rutter et al., 2009). Recently, interpersonal approaches to psychotherapy have also garnered attention, especially for disorders such as depression, bulimia, and even some personality disorders (Benjamin, 2004).

Self Assessment Questions 3

1. Id is the part of our psyche that controls our morals. True / False.
2. Ego-defense mechanisms are _____
3. Which psychosexual stage of development is characterized by Oedipus complex?
4. Who developed the attachment model of psychopathology that focuses on early parent child relationship?

2.7 THE BEHAVIORAL APPROACHES

The behavioural perspective came up partly as a reaction to the unscientific methods of psychoanalysis. Behavioural psychologists believe that people do not improve by just talking and should be treated using various prescriptive and mechanical techniques. Their focus has been on external factors which shape an individual's behaviour (Mahoney, 1977). So, in order to understand human behaviour, we need to study directly observable behaviour or overt behaviour and the reinforcing conditions which build them and maintain them. So, the individual learns new and appropriate ways of acting in the therapy and maladaptive behaviour is replaced by the adaptive one. Behavioural perspective is firmly rooted in experimentally derived principles of learning, thus believes that pathology is also learnt. Pathology may occur due to faulty learning, biological deprivation and/or failure to learn adaptive ways to act and behave. The main question addressed here is how learning occurs.

(1) Classical Conditioning

Classical conditioning is a learning process that occurs when two stimulus are paired repeatedly. In this case, a response which is at first elicited by the second stimulus is elicited by the first stimulus in the due course of time (due to repeated number of pairings). Food is a product that naturally elicits salivation, Pavlov (1927) paired it with another stimulus that reliably preceded and signalled presentation of food, thus this second stimulus also came to elicit salivation. Figure 2.4 illustrates the process of classical conditioning.

John B. Watson's experiment with Little Albert is a perfect example of

conditioning of fear response. Albert initially did not show any fear of a white rat, but after the rat was paired repeatedly with a loud and scary sound (produced by striking a hammer on a steel bar), the child eventually started crying whenever the rat was present. Prior to conditioning, the white rat was a neutral stimulus, loud, clanging sound was the unconditioned stimulus, and fear was the unconditioned response. By repeatedly pairing the rat with the loud sound, the white rat (now the conditioned stimulus) started evoking the fear response (conditioned response). The child's fear also got generalized to other white furry objects like teddy bears etc. this phenomenon is known as *generalization*. This experiment also illustrates how phobias can form through classical conditioning. In some cases, even a single pairing of a neutral stimulus (for instance, a dog) and a fear provoking experience (being bitten by the dog) can lead to feared response and phobia (being afraid of dogs).

The responses paired via classical conditioning are well maintained over a period of time. However, if a CS is presented repeatedly without the UCS, the conditioned response may gradually extinguish. This gradual process is known as *extinction* and may return at some point in time, a process called as *spontaneous recovery*. It is the reappearance of conditioned response after a rest period. Bouton and colleagues (2006) emphasized that a weaker CR may still be elicited in an environmental context different from the one where extinction took place. For instance, even though extinction of fear has taken place in a therapist's office, it may not get generalized completely and may become visible outside the therapist's clinic (Mystkowski & Mineka, 2007).

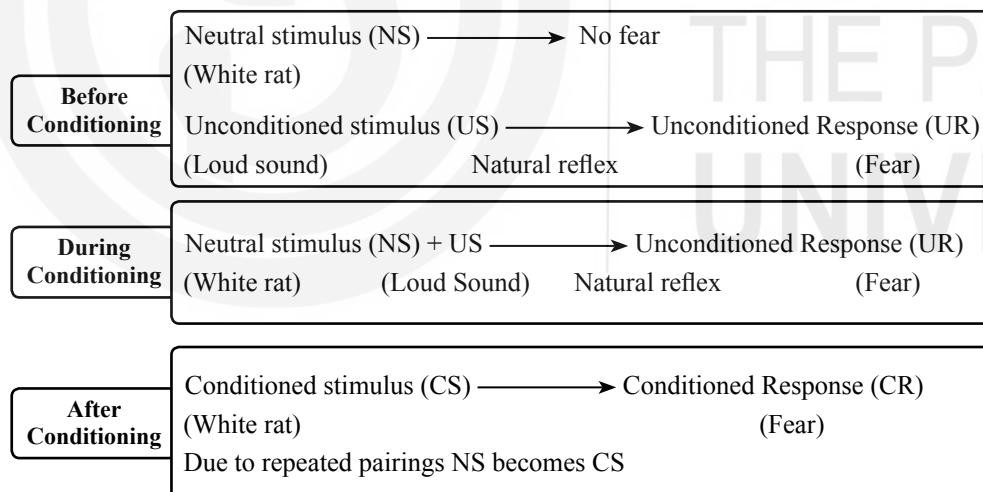


Fig. 2.4: Classical Conditioning

Classical conditioning has been used as an important explanation to understand abnormal or maladaptive patterns of behaviour as various physiological and emotional responses can be conditioned. This may include, fear, anxiety, or sexual arousal and the arousal stimulated by drug abuse. Principles of classical conditioning also have implications for various forms of behavioural treatment.

(2) Instrumental Conditioning

Essential to instrumental (or operant) conditioning is the idea of reinforcement- delivery of a reward (pleasant stimulus) or removal of (or

escape) from an aversive stimulus. New responses are learned and they recur if they are reinforced (stimulus-response connection). It is also believed that people learn a response-outcome expectancy- that response will lead to a reward outcome. So, if an individual is sufficiently motivated to for the outcome, they will make the response learnt to produce the outcome. Higher rates of reinforcement might be necessary to establish a response but usually lower rates are sufficient to maintain it. Let's take an example to understand operant conditioning, a young girl who weighs 'normal' starts losing weight. Her friends and family praises her for doing so, she may continue losing weight even if that means starving herself. Her controlled eating behaviour may continue as she now associates praise and acceptance of others (which she might have craved for earlier) with reduction in her diet.

Eysenck and Rachman (2013) suggested a three-stage explanation of development of abnormal behaviour. The first stage talks about a series of traumatic events that produce UCR in individuals. These responses may eventually result in neurotic behaviour patterns. The second stage utilizes the classical conditioning paradigm directly and explains the generalization of anxiety to an unhealthy magnitude. The last and the final stage involves instrumental avoidance of painful or anxiety provoking stimulus. Let us take an example (also given above) to understand this, a girl who has fear of dogs. The trauma of being bitten (US) would have produced a natural response- pain. Now, whenever she sees a dog (CS), associates it with this traumatic event and runs away (CR). Running away and avoiding them (operant avoidance) produces relief from original anxiety and serves the purpose. Thus, the phobia and avoidance serve as a reinforcing stimulus.

It has also been understood that new learning may occur as a result of positive reinforcement and old patterns are abandoned due to lack of reinforcement or even punishment. Unfortunately what we learn although rewarding for the time being (such as drugs, alcohol etc.), is not always useful in the long run. Sometimes we may also learn certain coping patterns (bullying, learned helplessness) which might be maladaptive rather than adaptive, especially in the long run. Behavioral therapy also plays a role in dealing with these issues.

(3) Observational Learning

All of us observe things and people around us and we also learn through it. Learning through observation alone (Bandura, 1969), without directly experiencing an unconditioned stimulus or any sort of reinforcement is called as observational learning. For instance, young children can acquire new fears only by observing a parent or a peer getting scared of an object or a situation. Thus, the experience the fear of the parent or peer vicariously and it becomes attached to an object which was earlier neutral for them (not evoking fear earlier) (Mineka & Cook, 1993). Children can learn to be aggressive after watching their peers behaving aggressively or a celebrity they love behaving that way. Therefore, we can learn both adaptive and maladaptive behaviour by observing them.

Impact of Behavioural Approaches

The behavioural perspective tries to explain acquisition, maintenance,

modification, and extinction of almost all kinds of behaviour. Thus, maladaptive behaviour has been understood as either a failure to learn necessary adaptive behaviour or learning ineffective or maladaptive responses. Thus, the behavioural therapist focuses on changing or modifying specific behaviours and emotional responses. For instance, in order to treat a phobia, prolonged exposure or gradual exposure to the feared object is used. Tenets of behavioural viewpoint have also been used to re-teach basic life-skills such as wearing clothes themselves or feeding themselves.

The behavioural approach is known mainly for its objectivity, precision, effectiveness and empirical nature. A behaviour therapist specifies what behaviour is to be changed and how that is to be done. The effectiveness of the therapy can be easily evaluated by the degree to which the stated goals have been achieved or not. Despite this, it has to face certain criticisms such as it oversimplifies human behaviour and is unable to explain its complexities. Another major issue it has faced is the fact that it seems to be concerned only with the symptoms and not their underlying causes. This creates a further problem that as the underlying root cause is not being dealt with this or some other symptom may again erupt.

Self Assessment Questions 4

1. Operant conditioning represents learning through using repetitive stimuli. True / False.
2. Can children acquire fear of an object by observing their peers or parents getting scared it? Yes / No.
3. Which model of psychopathology suggests that psychological disorders result from acquiring dysfunctional ways of thinking and acting?
4. Core beliefs are spontaneous and specific thoughts with negative affect. True / False.
5. _____ is the process of changing the cognitive structure to accept something new from the environment as it cannot fit in otherwise.

2.8 THE COGNITIVE-BEHAVIOURAL APPROACH

The cognitive-behavioural approach traces its roots to learning principles and to cognitive science. So, the basic principles of classical and operant conditioning along with cognitive science have shaped various cognitive-behavioural therapies. Cognitive psychology involves a study of basic mechanisms related to information processing, such as attention, memory, thinking, planning, decision making etc. the traditional, radical behavioural viewpoint did not give importance to the mental processes. It was Bandura who developed an early cognitive-behavioural sort of an approach and emphasized that humans also regulate behaviour by internal symbolic processes, called as thoughts.

Currently, the cognitive or cognitive behavioural view on abnormal behaviour is mainly focused on how thoughts and information processing

can get distorted and lead to maladaptive behaviour and emotions. Our thoughts (more than external stimuli) elicit reward and/or punish our actions, thus, to change a pattern of behaviour we must change the pattern of thoughts underlying it (Hollon & Kendall, 1979). Aaron Beck's (a cognitive psychologist) work has also influenced the cognitive behavioural view. He was mainly interested in studying what people said to themselves and the way they monitored themselves. He believed that people develop different schemas depending upon their temperament, capabilities, and their experiences in life which guides their current processing of information. Cognitive behavioural approach integrates the cognitive restructuring approach of cognitive science with behavioural modification of Behavioural viewpoint. So, both thoughts and behaviours causing distress are identified and the therapists work on changing the thoughts to readjust the behaviour.

Box 2.2 Some Basic Principles of Cognitive Behavioural Approach

- The cognitive principle: people's emotional reactions and behaviour are strongly influenced by their cognitions (thoughts, beliefs etc.) and all of us react differently to similar events. So, there must be something else other than the event that determines the emotion-interpretation of the event (depicted in figure 2.5).
- The behavioural principle: it is believed that behavior can have strong impact on thoughts and emotions and in particular changing what you do is a powerful way of changing thoughts and emotions.
- The continuum principle: cognitive behavioural approach believes that it would make more sense if we see mental health problems arising from exaggerated or extreme versions of normal processes rather than pathological states. Thus, psychological problems are at one end of a continuum not on a different dimension altogether.
- The 'here and now' principle: the focus is on understanding the processes that are currently maintaining the problem rather than what might have happened years ago that led to development of the problem eventually.
- The 'interacting systems' principle: problems are understood as developments that occurs due to interactions between various systems (cognition, affect, behavior and physiology). These systems interact with each other and the environment (physical, social, family, economic and cultural).

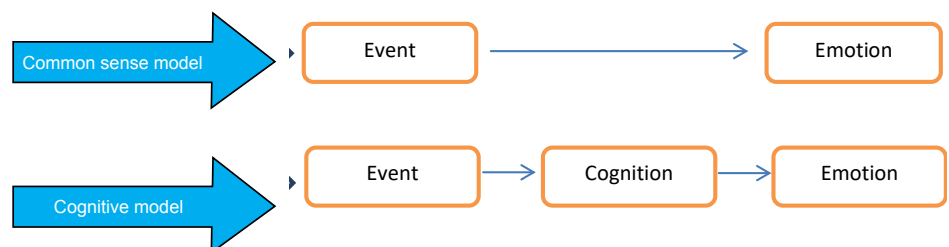


Fig. 2.5: The Cognitive Model

• Schemas and Cognitive Distortions

Cognitive behavioural view rests on a basic assumption that the primary

problem of an individual has to do with his construction of reality (Beck, 1983). While growing up, we develop views about ourselves, things around us, and people around us and these help as guides through the complexities of life. These are called as schemas. But, sometimes we develop distorted views of connections between ourselves and the environment and now these distortions guide us about how we think and feel regarding ourselves and process the world. We hold some schemas, even the distorted ones with a lot of conviction thus making them resistant to change but in order to improve the person's behaviour or symptoms, these schemas have to change. Interestingly, we are usually consciously unaware of our schemas. Our daily behaviour and decisions are shaped by these frames of reference but without our awareness of assumptions on which they are based.

Box 2.3 How Do We Work Out New Experiences?

Whenever we encounter a new experience, we try to make sense of it according to our existing cognitive framework, even if the information is to be reinterpreted in some way or distorted. Two of these basic processes are as follows:

- **Assimilation:** it occurs when the individual encounters a new idea and transforms it so that it can be placed in the preexisting cognitive structures. It is like filling the existing container.
- **Accommodation:** it is the process of changing the cognitive structure to accept something new from the environment as it cannot fit in otherwise. So, it's like reshaping the containers.

We use both these processes throughout our lives to make sense of things around us. It's a fact that it is always difficult to change the existing assumptions, thus we reject or distort the new information. Therefore, accommodation is a difficult and a threatening process and also the basic goal of cognitive behavioural therapies.

Beck (1967) discussed three levels of thoughts which have a role to play in both normal and abnormal behaviour. These are as follows:

- *(Negative) Automatic Thoughts:* these come to us spontaneously and seem quite plausible but they can be distorted and associated with negative affect or dysfunctional behaviour. They are specific thoughts triggered by specific events and can easily become conscious. Refer to figure 2.6 to understand automatic thoughts with an example.
- *Underlying assumptions or immediate beliefs:* these are theories about how we and the world should operate and thus reside at a deeper level. They are more generalized and abstract and take the form of set of rules, 'shoulds', 'imperatives', or 'if-then' statements that can have a disabling effect. Some of these ideas can be culturally reinforced but these can be dysfunctional as they are rigid and overgeneralized.
- *Core beliefs or schemas:* they exist at a more fundamental level than assumptions and reflect deep seated model of self and others. For instance, the self-schema of a person with depression is that of marking vulnerability wherein they attribute their failure to internal, stable and global characteristics. These are not immediately accessible so have to be inferred. They are usually learnt in childhood and may

comprise of intense experience(s) at any age. Schemas are like lenses so if you think you are unlovable, even if someone loves you, you will end up finding an ulterior motive in it.

Thus, thoughts are most easily accessible followed by assumptions and then cognitive schemas. So, in therapy, we first deal with these (negative) automatic thoughts only.

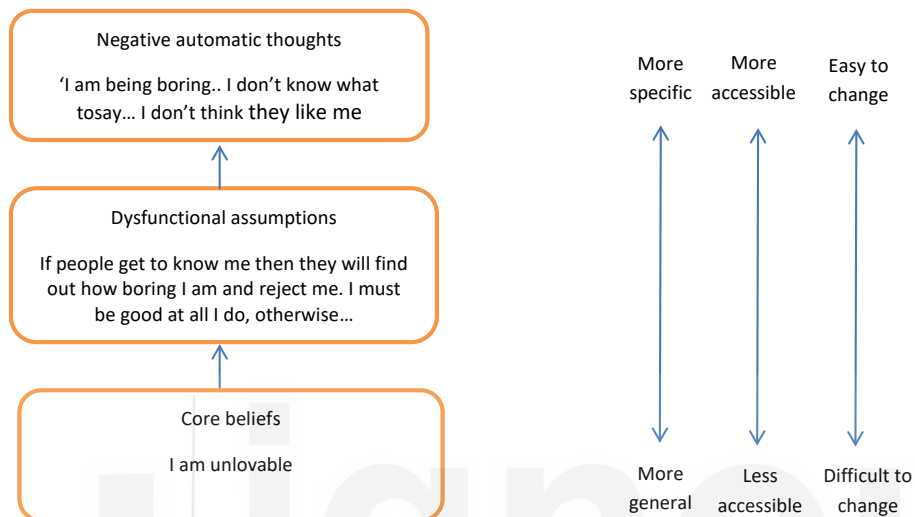


Fig. 2.6 Levels of Thoughts

Different forms of psychopathology are characterized by different maladaptive schemas that have developed over the years and also due to adverse early learning experiences (Beck et al. 2005). These schemas lead to the distortions in thinking that are characteristics of various disorders such as anxiety, depression, and personality disorders. Table 2.4 describes some of the common core beliefs in some mental disorders. Research in this area has also shown that there are certain cognitive mechanisms that are involved in causing or maintaining these disorders. For instance, people with depression show memory biases and favour negative information over positive or neutral information. These biases have a major role in maintaining the individual's depressed state.

Table 2.4 Some Common Core Beliefs in Depression, Schizophrenia and Borderline Personality Disorder

Depression	Schizophrenia	Borderline Personality Disorder
I am unlovable	I am vulnerable	I am unsure about who I want to be
The world is uncaring and unforgiving	No one is trustworthy	I am unattractive and no one wants to love me
I cannot succeed at anything	My persecutors are very strong and I have to do something extreme to stop them	I have to do something drastic to gain attention
Life is a painful experience	I have no control over the voices I hear	Relationships are inherently destructive
I am unattractive and boring	The world is a dangerous place	I will eventually mess up
There is no hope, no one can help me		

Source: <https://madeinheene.hee.nhs.uk/Portals/19/2016%20Basic%20Psychological%20Treatments%20-%20CBT%20-%20SRM.pdf>

Impact of Cognitive Behavioural Approach

In the contemporary times, the cognitive behavioural perspective is one of the most influential ones in understanding psychopathology and even treating it. Many practitioners and therapists have agreed that by changing the way we think about ourselves and others, alterations in human behaviour is possible. It has found solid empirical support and has been highly recommended in treatment of various disorders such as anxiety, depression, schizophrenia, and personality disorders. Studies about effects of emotions on cognition and behaviour have also provided evidence for this approach.

In the present Unit, we discussed some of the theoretical perspectives in understanding psychopathology; in the next unit we will discuss some more approaches related to it. One thing to be noted here is that no one perspective alone can account for the complex variety of human maladaptive behaviour. For instance, while making sense of depression, the more traditional psychodynamic approach will focus on intrapsychic conflict and childhood experiences; the behavioural viewpoint will focus on faulty learning of habits and the environmental conditions maintaining the disorder; whereas the cognitive-behavioural viewpoint will focus upon the maladaptive schema learnt as a child and the immediate negative thought regarding the situation. Thus, the perspective we adopt will determine our perception of the behaviour, type of evidence we would look for and how we would interpret that data.

2.9 LET US SUM UP

- While considering the causes of psychopathology, it is important to distinguish between necessary, sufficient, and contributory causal factors. Along with this, predisposing, precipitating, and perpetuating factors also have a role to play.
- In order to investigate biologically based vulnerabilities, we need to consider neurotransmitter and hormonal imbalances, genetic factors, temperament, and brain dysfunction and neural plasticity.
- There are three methods to study genetic versus environmental influences on an individual- family history method, twin studies, and adoption method. Recently, linkage analysis and association studies have also been seen contributing to the knowledge about exact location of genes which could be contributing to mental disorders.
- In understanding psychologically based vulnerabilities, three primary perspectives have been developed since the 19th century- psychodynamic, behavioural, and cognitive-behavioural.
- Psychosexual model emphasizes that personality development takes place through a sequence of stages (Oral, anal, phallic, latency and genital) and each of them has its own unique mode of sexual gratification. Fixation at any stage can be a cause of abnormal behaviour.
- Erikson's psychosocial theory of development emphasizes the social nature of our development and suggests that an individual's

personality develops throughout the lifespan.

- Object relations theory is an offshoot of the psychodynamic perspective which suggests that personality can be understood as reflecting mental images of significant figures that we form early in life in response to our interactions within the family. These may have implications for later interpersonal relationships.
- The behavioural viewpoint focuses on the role of learning in human behaviour and attributes maladaptive behaviour to a failure in learning adaptive behaviour or learning inappropriate behaviour.
- The cognitive-behavioural view discusses how thoughts/cognition gets distorted and can be a case of psychopathology. People's schemas and self-schemas have an important role to play in the way they process information and attribute outcomes to causes.

2.10 KEY WORDS

Classical conditioning: it is learning through association wherein the neutral stimulus comes to elicit a response similar to the one elicited by the biologically potent stimulus.

Ego defense mechanisms: these are mental strategies that we use to manage our anxiety when we feel threatened.

Genes: the basic physical and functional unit of heredity and is made up of DNA-Deoxyribonucleic Acid.

Hormones: chemical messengers produced by endocrine glands directly into the bloodstream

Introjection: it is an unconscious process by which a person incorporates the characteristics of another person into his/her own psychic apparatus.

Neural plasticity: it is the brain's ability to form new neural connections throughout one's life. It allows the neurons to compensate in case of injury and disease to adjust their activities (as a response to change in situation).

Neurons: they are fundamental units of the brain and nervous system, responsible for sending, receiving, and transmitting electrochemical signals throughout the body

Neurotransmitter: chemical substances that transmit messages from one neuron to another

Operant conditioning: it's a form of learning through which the strength of a behaviour is modified by reinforcement or punishment

Reinforcement: it refers to anything that increases the likelihood that a response will occur in future.

Schemas: cognitive frameworks that help us in organizing and interpreting information in the world around us.

2.11 ANSWERS TO SELF ASSESSMENT QUESTIONS

Answers to Self Assessment Questions 1

1. True
2. Reinforcing contributory cause
3. Precipitating factors

Answers to Self Assessment Questions 2

1. Cortisol
2. Down Syndrome
3. True
4. Temperament refers to stable, early appearing individual differences on our behavioural tendencies that have a constitutional basis.

Answers to Self Assessment Questions 3

1. False
2. Protective measures by ego to help the individual in dealing with anxiety.
3. Phallic stage
4. Bowlby

Answers to Self Assessment Questions 4

1. False
2. Yes
3. Cognitive- Behavioural model
4. False
5. Accommodation

2.12 UNIT END QUESTIONS

- Explain how neurotransmitter and hormonal abnormalities may produce abnormal behaviour.
- Describe any two methods for studying genetic influences on abnormal behaviour.
- What is the relationship between an individual's genotype and phenotype? Describe how genotype can shape and interact with the environment.
- Discuss the psychoanalytic and the newer psychodynamic perspective on abnormal psychology.
- What is the focus of behavioural perspective and what has been its impact?
- What is the central theme of cognitive-behavioural perspective and its impact?

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UNIT 3: THEORETICAL PERSPECTIVES ON PSYCHOPATHOLOGY II*

Structure

- 3.1 Learning Objectives
- 3.2 Introduction
- 3.3 The Humanistic Approach
- 3.4 The Existential Approach
- 3.5 The Familial and Cultural Approaches
 - 3.5.1 Early deprivation and trauma
 - 3.5.2 Inadequate parenting styles
 - 3.5.3 Marital discord and divorce
 - 3.5.4 Low socio-economic status and unemployment
 - 3.5.5 Prejudice and discrimination in race, gender, and ethnicity
- 3.6 The Biopsychosocial Approach
- 3.7 Let Us Sum Up
- 3.8 Key Words
- 3.9 Answers to Self Assessment Questions
- 3.10 Unit End Questions
- 3.11 References and Suggested Readings

3.1 LEARNING OBJECTIVES:

After studying this unit, you would be able to:

- *describe the key concepts and application of the humanistic approach to psychopathology;*
- *discuss how the existential approach understands maladaptive behaviour;*
- *discuss the familial and cultural factors behind psychopathology; and*
- *explain the biopsychosocial approach to understand abnormal behaviour.*

3.2 INTRODUCTION

In the previous unit, we understood the biological viewpoint and three of the prominent psychological viewpoints- psychodynamic, behavioural, and cognitive-behavioural. There are some other viewpoints which arose as they were largely against the deterministic and mechanical views (of humans) offered by psychoanalysis and behavioural viewpoints. These perspectives acknowledged a person's freedom of choice and the concept of free will. In this unit, we would discuss two such perspectives- humanistic and

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existential. Along with it, we will also highlight the familial and sociocultural viewpoints to psychopathology and discuss a need for a biopsychosocial approach to understand and deal with maladaptive behaviour.

3.3 THE HUMANISTIC APPROACH

The humanistic perspective emphasizes man's capacity for goodness, creativity, and freedom. It views man as a spiritual, rational, purposeful and an autonomous being who has unlimited potential to develop in positive and self-fulfilling ways. Due to its primacy to human values, individuality, and uniqueness the name humanistic theories came up. Focussing less on the unconscious processes and past causes, it pays more attention to present conscious processes and places strong emphasis on human's inherent capacity for responsible self-direction. Humanistic theorists see humans as a 'whole' and believed that human's striving for growth, dignity, and self-determination are important for personality development than the primitive motives as emphasized by Freud. Thus, the focus on 'self' re-emerged with the humanistic perspective.

Box 3.1 Basis of the Humanistic Approach

- Strong emphasis on human consciousness, becoming and responsibility.
- Resists conception of humans as animals functioning deterministically and mechanically in response to environment or childhood experiences.
- If individuals are allowed to develop freely, they will become rational, socialized and constructive beings.
- One must pay attention to the natural context and no part of human experience should be left.
- Experience is to be understood in its richness and variety and not just overt behavior or unconscious motivation.
- Humans are free to transcend their environmental circumstances, intentionality, and activity of mind.
- Human beings are a process and not a product.

Humanistic psychologists argue that most of the empirical researches designed to investigate causal factors make simplistic claims and cannot reveal the complexities of human behaviour. Therefore, this perspective focuses more on the processes such as love, creativity, values, hope, meaning, personal growth, and self-fulfillment. These are abstract processes and thus are not subjected to empirical investigation but some of the underlying themes and principles of humanistic psychology are identified with self as a unifying theme and specific focus on values and personal growth of human beings.

We will discuss two prominent humanistic theorists namely, Abraham Maslow and Carl Rogers in this Unit. Maslow (1970) argued that our inner nature is not evil and suppressing it can lead to psychological or physical illness. We strive to actualize our inner potential which is suppressed by cultural and societal pressures. If we are allowed to guide our own lives,

we can grow healthy, fruitful, and happy. He believed that health is not just the absence of disease or it is not even the opposite of disease or illness. So, Maslow talked about a 'healthy personality'. He regards that a truly healthy personality is that one that possesses resilience, fortitude, and creativity to be innocent. He talks about becoming more of our real selves and not what others expect us to be, thus, dropping our masks- to impress others and to please others in order to become more real and authentic.

One of the major contributions by **Abraham Maslow** is the motivation theory or hierarchy of needs. The theory rests on the belief that humans are not pushed by drives (deficiency motivation) but pulled by needs to be fulfilled (satisfaction driving). So, something about the goal motivates us. Self actualization represents the growth of an individual towards fulfilment of the highest needs- those for meaning of life in particular. This need is undergirded by at least four other needs- physiological, safety, love/belongingness, and esteem, forming a need hierarchy (1968) (Refer to Fig. 3.1). It is the drive that propels the organism to eliminate imbalance.

Maslow was not concerned with abnormality but rather failure to progress beyond the minimum acceptable standards of normality. This failure is called as the psychopathology of normal. Psychology of normals should ideally address not just to "breakdowns" but also to help people live rich, meaningful, and creative lives.

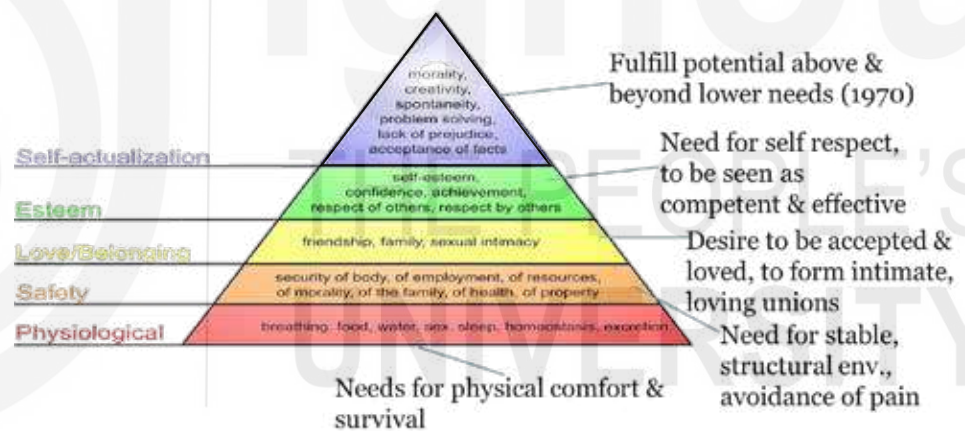


Fig. 3.1 Maslow's Hierarchy of Needs

Source: adapted from https://greatergood.berkeley.edu/article/item/maslows_theory_revisited

In some neurotic adults, need for safety is not met and they react to unknown as psychological dangers and perceive the world to be hostile. One of the ways in which this search for safety finds expression is through obsessive-compulsive tendencies. They try to organize and stabilize their world in such a way that no unmanageable or unexpected danger would come their way (Maslow, 1943). Goldstein (1939) describes them like people with brain injury who manage to maintain their equilibrium by avoiding things that are unfamiliar and strange. They order their restricted world in neat and disciplined fashion so that everything can be counted upon and nothing unexpected (dangers) can possibly occur.

Thwarting of need for belonging, love and affection is the most commonly found one in our society, especially in the case of maladjustment and

severe psychopathology. It is important to remember here that love is not synonymous to sex, as it is understood as a physiological need in this theory. Discontentment with need for self-esteem can produce feelings of inferiority, weakness and helplessness. These feelings can be responsible for either compensatory or neurotic trends (Horney, 1937; Kardiner, 1941). Conditions such as freedom to speak, do what one wishes to do (without harming others), express one's self, freedom to defend one's self, justice, honesty are some which are prerequisites for the basic need satisfactions. If these freedoms are thwarted, the individual may react with an emergency response.

Carl Rogers (1902-1987) developed a systematic formulation of self-concept, which he based on his pioneering research into the nature of the psychotherapeutic process. Rogers began studying troubled personalities and realized that psychological problems result when people are prevented from being what they truly are. He emphasized that we need to understand an individual from his phenomenal field- the entire panorama of a person's experience, including his subjective apprehension. How a person behaves, actually depends upon their phenomenal field (subjective reality) rather than stimulating conditions (external reality). According to Rogers, the most basic striving of an individual is towards the enhancement, maintenance, and actualization of self, thus, if the conditions are normal, the individual strives for growth and wholeness.

'Self' has been given a lot of importance by the humanist psychologists, particularly Carl Rogers. It has been defined as our image of ourselves, a sense of who we are. It is according to this mental portrait of ourselves through which we judge and interpret our behaviour and experiences. If the image of self is broad, flexible, and realistic enough to allow us to bring and evaluate all kinds of experiences and bring them into conscious awareness, then one can identify and pursue the ones that are enhancing. Experiences that are perceived as enhancing are positively valued and maintained and the ones that are valued as bad are avoided.

All of us slowly develop a need for positive regard, i.e., need for affection and approval from important people in life, such as parents, teachers, friends etc. as we desire to be accepted by others. This starts since childhood and slowly builds our self-concept. So, when critical messages are portrayed towards the child, it may lead to incongruence between what the child feels good and how others view it. This ends up in child internalizing the values and beliefs of others and developing conditions of worth. The image of self that is built, is cut off from their sense of worth and value; what others view as unworthy is denied or distorted. They behave in ways they feel is expected of them and not their true feelings, thus preventing personal growth. If these conditions of worth are few and reasonable, the individual can still have a 'self' flexible enough to entertain various experiences life has to offer, but if these conditions of worth are severely limiting, it will obstruct self-actualization and also become a source of 'abnormal behaviour'. If there is total denial of certain thoughts and emotions, the real person may become alien to actual mind resulting in abnormal behaviour when the person is immobilized by anxiety and starts channelizing the energies to defend the self. We perceive the experiences selectively, some are denied access to

conscious awareness and they violate one's self structure, but this also makes the individual vulnerable to anxiety every time a fresh or a new experience threatens us to trigger perception of discrepancy.

To untie this knot, Rogers developed client centred therapy with an aim to create a warm and accepting environment for the client to perceive his world as he does by offering unconditional positive regard, releasing him of the necessity of defending an unrealistic self -image and confronting feelings inconsistent with self. In case of fully functioning people, no denial or distortions takes place, thus, they are less anxious and free from conditions of worth.

Humanistic psychologists emphasize that values and choices we make are important in guiding our behaviour and creating meaningful and fulfilling lives for ourselves. The idea is to be in touch and accept our experiences as they are rather than blindly accepting values offered by others. This is the way through which we can achieve our full potential- our basic striving in life.

Self Assessment Questions 1

1. According to the humanistic psychology, _____ is the entire panorama of an individual's experience.
2. Which one of the following is a concept of humanistic approach?
(a) Rationalism (b) Schema (c) Transference (d) Unconditional positive regard
3. Severely limiting conditions of worth can impede self-actualization and can lead to abnormal behaviour. True / False.

3.4 THE EXISTENTIAL APPROACH

Existentialism is another philosophical approach emphasizing a holistic view of human beings and validating the nature of human behaviour, thoughts, emotions and their choices. It echoes the core principle of humanism in many ways and rejects psychodynamic determinism and objective, mechanistic stance of behaviourism. For instance, it believes in the need and ability of the humans to define and find a sense of meaning or purpose for themselves in the world. It differs from humanism in an even stronger emphasis on free will, choice, freedom, self-determination, nothingness, and death anxiety. Main focus is on individuals and their capacity to exercise freedom to rise above environmental and social constraints. Existentialism is mainly tied to philosophical ideas and writings of various thinkers such as Sartre, Kierkegaard, Merleau-Ponty, Camus, Boss, Binswanger and many others. Rollo May (1961) reiterated that existentialism is the endeavour to understand the nature of man, who does the experiencing and to whom the experiences happen (1961, p.12). The emphasis is on the immediacy of experience as the individual lives it- focusing on here and now. This is because they view humans as a complex of conscious processes which are ongoing and changing. According to them, man is continuously striving for a future state of self-fulfilment.

Box 3.2 Some Basic Themes of Existentialism

- **Existence precedes essence:** our existence is given to us but what we make of it (our essence) through our choices is up to us. “I am my own conscious choice of existence”.
- **Meaning and value:** the will-to-meaning is the basic human tendency and we guide our lives according to it.
- **Anguish or anxiety:** it is all pervasive and an underlying universal condition of human existence.
- **Nothingness or void:** if no essence defines me as I end up rejecting all philosophies and sciences (as an existentialist) which fail to reflect my existence as conscious being then there is nothing that structures my world. “I am my own existence but my existence is nothingness”.
- **Death:** nothingness may also exist in the form of death. Despite its certainty, we try to escape its reality. “If I take death into my life, acknowledge it, and face pettiness of life- and only then will I be free to become myself”.- Heidegger.
- **Alienation or estrangement:** apart from my own conscious being, everything else is otherness. Science has alienated us from nature by its mathematized concepts which are incomprehensible by laymen.
- All our personal relationships are poisoned by feelings of alienation from others. We do not have roots in past and nor do we see ourselves moving in a meaningful future.

As mentioned above, an important concept in existentialism is that of angst or anxiety that mainly occurs due to the responsibility that comes with freedom and also the accountability for future consequences. The fact that “I am responsible for the choices I make” can be quite anxiety provoking as this involves being responsible for the consequences (good or bad/ right or wrong) that follow. So, this could make us anxious and could be quite stressful as well. This angst is also related to the need to accept inevitability of death and make sense of it in order to live a full life. Another concept is that of authenticity. It is the degree to which our actions are congruent with our beliefs, values, and desires, regardless of the external pressure of the society to conform to certain beliefs or practices. But, if people are not able to lead a life they intended to create, it leads to despair. For example, a student who had dreamt of becoming a journalist her whole life may experience despair if she is not accepted into any journalism program.

The existential approach has been used to understand psychopathology and has also been applied to psychotherapy particularly by Tillich and Yalom. Tillich claimed that the focus should be on dealing with issues related to daily living, such as loneliness, suffering, and meaninglessness of life. Yalom discussed that all of us experience certain common things in our lives, such as death, freedom, emptiness, and isolation. Therefore, anxiety or despair is not something to be afraid of symptom of a disorder, rather these are normal parts of day-to-day experiences and we need to confront them. Another existentialist, R.D. Laing argued that schizophrenia is not

a “disease”. It is basically an individual’s desperate attempt to survive conflicting and irrational demands of the world. Thus, more than the so-called patient, society or the world deserves the label “mad” (Monte, 1995). Laing also pointed out that humans also face a challenge and are threatened by nonbeing-ontological insecurity. He described three modes of it, they are as follows:

- Engulfment (loss of identity): for some people, their sense of self is so feeble or shaky that any relationship with another may overwhelm them, resulting in a struggle to maintain their own identity. Thus, they end up isolating themselves from others.
- Implosion (the vacuum of an empty self): this is the case when the individual senses that the external world will rush in and obliterate all identity. They assume that they are empty like the vacuum.
- Petrification and Depersonalization (the doubt of being alive): it is the dread that one will be turned into stone or become a robot without feelings, subjectivity or awareness. Petrification happens when someone treats another person as an object as not as another being (Laing, 1959).

Even phenomena such as depression, aggression and addiction cannot be understood unless the existential vacuum underlying them is recognized. This vacuum may appear under various guises and masks. Existentialists describe that the false-self system that a person with schizophrenia develops is dangerous and is also the most treasured component of his/her life. It is cherished because it acts as a buffer between others and the real self of the individual. But, the problem is that the false-self mask is fearsome and powerful enough to assimilate the whole being. The false-self actually presents to the world what troublesome people expect, to the extent that the false-self adopts behaviour modelled by others, what is expected by others, in order to prevent the true self from getting impacted. It’s like ‘role-playing’ normality. Thus, the understanding of what is normal and what is pathological differed greatly in this particular viewpoint. The emphasis has always been on accepting the anxiety and using it to make authentic choices about life and taking responsibility of future experiences rather than sitting back and reacting to circumstances.

Self Assessment Questions 2

1. Authenticity is _____.
2. According to Laing, three modes of being in ontological insecurity are _____

3.5 THE FAMILIAL AND CULTURAL APPROACHES

All of us learn from our experiences which help us in making sense of the world later life and also help us in facing certain challenges resourcefully. These experiences that we are talking about could be the encounters at home, that is, in the family environment or in the outside world, society we live in or the culture we are a part of. As we discussed in the previous unit

about genetic inheritance, we also receive sociocultural inheritance which is a product of social evolution. In a society, there are certain values that we consider essential and follow them. It may also have some social influences that end up being harmful, such as certain social expectations, prejudice, discrimination etc. In this section, we will discuss about some these familial and sociocultural factors that may have a role to play in development of maladaptive behaviour or psychopathology.

There are children who grow up in stable, loving and indulgent environments. Their elders try to buffer them from all sorts of harsher realities of life and the world outside. If someone asks us, we will perhaps always choose for this set of experiences especially when compared to another one where in there is constant exposure to unpredictable and uncontrollable frightening events. However, this actually may not be the best design to engage with the real world. If constant exposure to unpredictable events can take a toll on an individual then a uniformly loving, non-threatening environment also doesn't prepare them for what is to come in the real world. Thus, it is important to encounter certain stressors and learn to deal with them in order to gain a sense of control and efficacy (Barlow, 2002; Bandura, 1997). But, let us talk about the other extreme here, exposure to various uncontrollable and unpredictable frightening or traumatic events may leave a person vulnerable to negative affect, anxiety and depression. Let us understand some of the aspects which could be responsible for making people vulnerable to certain disorders or may precipitate disorder.

(1) Early deprivation and trauma

Everyone needs food, shelter, love, affection and attention from their significant others. In the humanistic theories discussed above, we have already mentioned how if these needs remain unmet, can be a source of distress contributing to certain psychological disorders. Such deprivations can occur in various ways. For instance, children who are either orphaned or abandoned by their parents may be deprived of these basic needs. Children from intact families, living with unavailable parents (due to some or the other reason) may also be deprived of these basic needs including attention, care and nurturance from others. These deprivations can result in some or the other sort of fixation in the child, or may hinder attainment of some skill (physical or psychological in nature) relevant to their developmental phase. The child may follow similar unhealthy patterns in relationships later in life as they have grown up with various dysfunctional schemas and role models.

Some children end up facing neglect and abuse at their home. Their maltreatment may include physical neglect, not receiving love and affection, less attention being paid to their activities, achievements etc. Abuse on the other hand may involve harsher treatments such as emotional, sexual or physical abuse. The neglect and abuse could be partial or complete, passive or active but leaves a lifelong scar on the psyche of the child. Researches show that abused children often are found to be overly aggressive and may even become bullies (Cicchetti & Toth, 2005). Such children may have problems in emotional, behavioural and social functioning and may develop conduct disorder, depression, anxiety etc. later in life (Collishaw et al., 2007).

Even in the context of maltreatment, attachments are formed during the first year of life; however, they could be disorganized in nature (See Table 3.1 for different attachment styles). The infant seeks comfort from a caregiver who is also a source of fear for him/her. Thus, they remain anxious most of the times impacting their brain development as well (Schofield & Simmonds, 2011). Maltreated children are more likely to have negative expectations of adults and this may also reflect in their behaviour towards others and environment at large. For instance, on one occasion, such a child might act dazed and show frozen behaviour when reunited with the caregiver, but on another occasion may approach the caregiver and then immediately reject or avoid them. They have a difficult time in building trusting relationships with others but warm, consistent and reliable caregiving can make a difference (Schofield & Beek, 2014).

Separation from the primary caregiver could be another major issue and can have traumatic effects on the children. In case of children from 2 to 5 years of age, separation may have short term or acute effects such as despair and detachment upon reunion (Bowlby, 1973). This has been considered as a normal response in case of prolonged separation even in children with secure attachment. But, if the frequency of separation and number of such instances increase, it may develop as an insecure attachment (ambivalent and/or avoidant).

Table 3.1 Different Types of Attachment Styles

Attachment style	Description
Secure	These children show distress when separated from caregivers and joy upon reunion. Even though they are upset, they are sure that the caregiver will return. They know that they can show their feelings and needs without having a fear of being rejected.
Ambivalent	It occurs when the caregivers respond inconsistently to the needs and demands of the child. They become distressed when the caregiver leaves and may show exaggerated attachment behaviour to attract attention.
Avoidant	These children tend to avoid their caregivers and thus show no preference between a caregiver and a stranger. This could be due to abusive or neglectful caregivers. They are usually punished for relying on caregiver and thus they learn to avoid seeking help from others (in future). They think of themselves as neither loved nor lovable.
Disorganized	These children demonstrate confused behaviour as they are not sure whether their caregiver will respond positively or negatively when approached. They are usually cared for by people who also provoke fear in them. Thus, they have problems in organizing their own behaviour and difficulty in regulating their emotions.

(2) Inadequate Parenting Styles

Apart from neglect, abuse or separation, there can be other aspects of parenting that can influence children's ability to deal with issues later in life and cope with different challenges, making them vulnerable to different forms of psychopathology.

It has been found that parents who have a history of schizophrenia, depression, anxiety, alcohol use and abuse, some personality disorder etc. tend to have one or more children at a risk for some or the other developmental difficulty (Boyce et al., 2006). This could be genetic (as discussed in the previous chapter) or could be due to the interaction between the parent and the child and the family environment created due to it. Children of parents diagnosed with serious clinical depression or major depression are at a higher risk for depression not just due to genetic influence but also because depression can lead to unskillful parenting. They are usually found to be either intrusive or withdrawn as parents (Field et al., 2006) and criticize the child a lot (Rogosch et al., 2004). This creates a highly stressful environment for the child also contributing to child's insecure attachment with the caregiver (Hammen, 2009).

It is important to note here that a parent-child relationship is bidirectional in nature and behaviour of one affects the behaviour of another. For instance, some children are easier to love than others. In a study, Rutter and Quinton (1984) found that parents tend to respond with irritability, hostility, and criticism to children with negative mood and low adaptability. This can increase the child's risk to psychopathology as they may become a "focus for discord" or reason for disharmony in the family (Rutter, 1990, p. 191).

Another aspect to be considered here is the parenting style including disciplinary style adopted by parents to raise the child. Discipline is important to understand as it gives the needed structure and guidance to promote healthy growth and development in the child. Four types of parenting style have been identified (See Fig. 3.2) and they vary in their degree of parental warmth (support, encouragement, affection, shame, rejection, and hostility) and control (discipline monitoring or leaving the child unsupervised). According to the researches, authoritative parenting which leads to secure attachments is the best style with children having lesser chances of developing emotional disorders or other behavioural problems. Salem-Pickartz and Donnelly (2007) also found that authoritative parenting is also effective in promoting resilience in children who face stressful environment such as displacement, conflict or even war.

Psychological Disorders: An Introduction

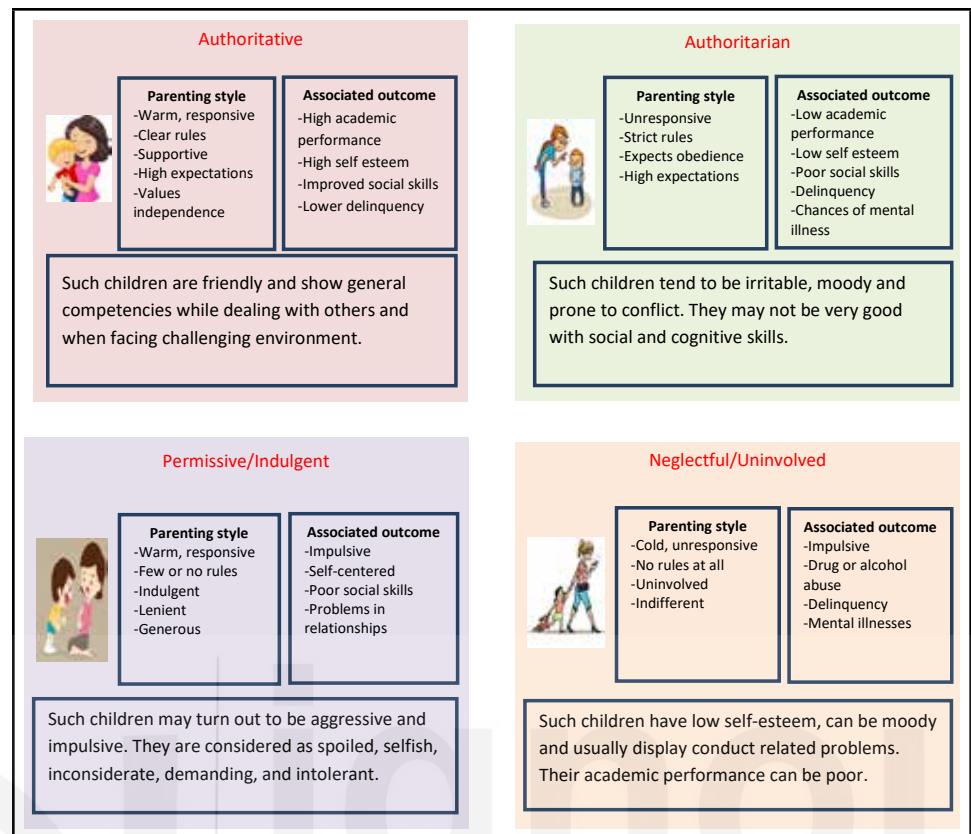


Fig. 3.2 Types of parenting styles

Image source: Vectorstock.com/5825585

Image sources: <https://www.dreamstime.com/illustration/mother-scold-child.html>

<https://www.kingdomofbaby.com/7-permissive-parenting-styles/>

<https://www.shutterstock.com/image-vector/bad-mother-uninvolved-parenting-172431701>

(3) Marital discord and divorce

Both, marital discord in the intact families and divorce between parents have a significant impact on the child. Marital discord, when long-standing can be a source of immense stress and hurt for the child (and also for the adults). It can expose children to abuse, neglect, spouse abuse etc. and they may carry its negative effects even later in their lives- in their peer relationship and romantic relationships. So, unhappy marriages are difficult but so can be the ones that end up in separation and/or divorce. This may induce feelings of rejection, inferiority, insecurity in the children and thus some of them end up developing maladaptive responses. Children who are sensitive and the ones who are considered as temperamentally difficult may have a hard time coping with marital discord or divorce in the family.

As we have mentioned that the parent-child relationship is bidirectional, it would be important to note here that the discord or divorce could be due to having difficult children which eventually would aggravate or worsen the marital problems (Hetherington, 1999). Delinquency, conduct related problems, anxiety, depression, substance use could be some of the issues seen frequently among adolescents whose parents have been separated or

who come from disturbed families (Strohschein, 2005). Divorce, separation or discord impact the children involved in the families but the impact on the adults can also be quite severe and devastating. Some adults are able to recover and re-construct their lives but for some it can be a reason for psychopathology which may also result in suicide, in some cases (Amato, 2000).

Self Assessment Questions 3

1. Which one is considered as the best parenting style?
2. Name the different attachment styles.
3. The child is unsure if the mother will respond positively or negatively to his needs and thus exhibits confused behaviour. Name the attachment style.

Box 3.3 Disturbed Communication Contributing to Psychopathology

Family and communication studies have also studied various communication patterns within the families, especially between the caregivers and the child which could be problematic and become a potential source of psychopathology. Let's try and understand it through a communication from a mother to her son who is feeling hostile and also guilty over her hostility (Bateson et al., 1956, p. 214):

"Go to bed, you're very tired and I want you to get your sleep."

This statement seems like an expression of parental love and care but carries a lot of conflicting messages. Let's try and understand these:

- Mother can detect an internal feeling in the son even before he is aware of it.
- Mother's interpretation of the situation is the only one that is valid- "*You're very tired*". The son's actual state of feeling may be different from this but the tone used with "*Go to bed*" impedes all possibilities of protest by the son. Thus, his feelings are deemed irrelevant.
- The statement "*I want you to get your sleep*" is a command and simultaneously a denial of command by implying care and concern (your).
- The actual purpose of this conversation is concealment of hostility and guilt from her target (son) and herself but the tone, bodily gestures, timing etc. may convey these conflicting feelings to the son and may be leaving him confused further.

Perhaps if the mother would have just said, "*Listen, I am fed up with you and very irritated right now so get out of my sight and go to bed!*", it would have hurt the child but he would be saved from dealing with a message which is tearing him in two directions at once and confusing him or even making him guilty.

A particular kind of communication that has been studied in this regard is called as **double-bind communication**, wherein a message conveys two or sometimes three meanings. The first meaning is a negative command, referring to punishment; the second is also an injunction but the receiver does not see it as a command or punishment. The third meaning is also a command but implicitly prohibits the victim from escaping the situation. It's like the endurance of the conflict will evoke love or acceptance. Let's take an example, an overweight child is asked to have another ice cream by the party host. The child's mother stares at the child and smiles while saying, "*You don't want more ice cream, do you?*" now, this statement is a full-fledged double-bind and the child is damned if he does and damned if he doesn't. If the child says, "*I do*", he provokes the mother for punishment and if the child agrees with the mother, he deprives himself of his enjoyment and accepts his mother's definition of his feelings.

One or two odd instances of double-bind communication cannot by themselves distort an individual's personality or lead to psychopathology. It's the constant environment of double binds that evokes disorder because his permanent mode of perception becomes accept and "can't win". In Bateson and colleagues' (1972) view, Schizophrenia is very much a case of disturbed communication between the "victim" and significant others.

(4) Low Socio-economic status and unemployment

Research has shown that lower the socioeconomic class, higher is the incidence of physical and mental disorder, such as depression, antisocial personality, etc. However, the strength of this relationship may differ from one to disorder to another. This relationship may occur due to several reasons, let us try and understand a few. People with some mental disorder may end up sliding down the rungs of economic status due to taboo and stigma attached to it and lack of economic or personal resources to rise up again. Such people may also have problems in accessing professional help and thus maintaining the disorder. Twenge and Campbell (2002) argued that people who live in poor conditions are prone to encounter more severe stressors in their lives and have fewer resources (if any) to deal with them, thus, exacerbating their condition further. Some studies have also pointed at a strong relationship between poverty and low IQ in children. Children from lower SES also face difficulty in adjusting to school and its demands. Perhaps due to an authoritarian parenting style and marital conflict (seen at home) they end up acting-out more often and display aggressive behaviour, along with bullying tendencies.

Similarly, unemployment comes with a wide range of experience of financial hardships, insecurity, inferiority, and emotional distress, increasing an individual's vulnerability to psychopathology. Unemployment may increase the levels of depression, anxiety, hostility, marital problems etc. not just in the individual but also in the spouse. Children are also impacted by it directly in terms of financial hardships and also due to the unhealthy environment that may get created in the house. Some researches (for instance, Dew et al., 1991) have also indicated that unemployed fathers are more likely to engage in child abuse.

(5) Prejudice and discrimination in race, gender and ethnicity

Different people have been subjected to stereotypes and discrimination on the basis of their caste, colour, race, gender and ethnic origins. This discrimination could be overt or subtle in many cases but exists in different spheres of life such as employment, education, health facilities, housing etc. For instance, most colleges encourage their students to socially interact with everyone, that is, people from all kinds of background- social, economic, gender, caste, class, community, ethnicity etc.; but many students end up forming their own groups (informally) with people from their subculture or community. Perceived discrimination predicts lower levels of well-being, autonomy, and self-acceptance (Ryff et al., 2003). In most cases, people against whom the stereotype is being held, end up living or fulfilling it. This is called as self-fulfilling prophecy, thus, fuelling the stereotype further.

Prejudice against a minority is something that all of us have heard of and seen around us, but this can also have adverse effects on the community,

increasing the prevalence of certain mental disorders and conditions such as depression and anxiety. The discrimination can impact the self-esteem and self-concept of the individual which may increase levels of distress in them impacting their occupational, social and psychological functioning. A study conducted by Padela and Heisler (2010) discussed how Arab and Muslim Americans who had experienced some sort of prejudice, discrimination, or violence in one or the other spheres of their lives after the bombings of the World Trade Center, New York, displayed increased psychological distress, increased health complaints (both physical and psychological), lower levels of happiness, dissatisfaction, and esteem related issues.

LGBTQI community faces constant prejudice, discrimination, and harassment at work, school and other social situations. Transgender youth is far more likely to experience depression- almost four times more than their non-transgender peers (Reisner et al., 2015) and is also highly likely to consider suicide. It has also been seen that more women suffer from certain emotional disorders, such as anxiety, depression than men. This could be partly due to the roles, responsibilities and duties assigned to them on the basis of their gender. Women and LGBTQI community still face massive discrimination at work which could be sexual in nature or on the basis of treatment they receive, for instance, being paid less, fewer promotion opportunities etc. (Eagly & Carli, 2007).

It is important to note here that our gender, ethnicity, sexual orientation etc. doesn't cause psychopathology, but because there are certain social and cultural expectations, roles and rules are attached with these aspects, it influences the form and content of a disorder. For instance, bulimia nervosa is an eating disorder that is found more in females than males. It has a lot to do with the emphasis on 'female thinness' in societies and cultures across the world. The pressure on males to be thin is apparently much lesser than women but comparatively higher in gay men (Rothblum, 2002).

3.6 THE BIOPSYCHOSOCIAL APPROACH

To believe that psychopathology is caused by a physical abnormality or by conditioning or by some cultural factor is to accept a linear or a one-dimensional model. With time and research most scientists and clinicians have come to believe that abnormal behaviour is a result of multiple influences. Interestingly, this perspective on etiology is systemic. It implies that any influence contributing to psychopathology cannot be considered out of context. Here, context has been described as biology and behaviour of the individual, their cognitive, emotional, social, and cultural situation. It works on the principle that one factor affects the other, interact with each other and we cannot separate one component of the system from another. Thus, a comprehensive biopsychosocial understanding is the ultimate goal.

A **diathesis-stress paradigm** is an integrative one that links genetic, neurobiological, psychological and sociocultural factors. The diathesis-stress concept was first introduced in 1970s to make sense of the multiple causes of schizophrenia (Zubin & Spring, 1977). Diathesis refers to the predisposition towards illness or developing a disorder. For instance, there could be genetically transmitted diathesis; neurobiological diathesis, such as oxygen deprivation at birth, poor nutrition etc.); psychological diathesis

may include a cognitive schema, ability to be easily hypnotized, intense fear of becoming fat etc. Having a diathesis for a disorder increases a person's risk for developing a disorder but doesn't guarantee the existence of the disorder. The stress aspect of this model is meant to account for how diathesis may translate into a disorder. Thus, here stress is the stimulus in the environment that may trigger psychopathology, for instance, a major trauma or even a mundane experience. Let us discuss some these models here:

- *Additive model*: it believes that the diathesis and stress add up as a sum together to develop a disorder. Individuals with a high level of a diathesis may need only a small amount of stress before a disorder develops, but those with very low levels of diathesis may need to experience greater amounts of stress before developing a disorder.
- *Interactive model*: it believes that some amount of diathesis is necessary and must be present before stress will have any impact. So, a person with no diathesis will never develop the disorder whereas someone with diathesis has a higher likelihood of developing a disorder with increase in stress levels.

Another important concept to be discussed here is the *protective factors*. These are the influences that modify a person's response to environmental stressors and help the individual in reducing the effects of adverse consequences of the stressors. Having a family with at least one parent as warm and supportive, allowing a healthy pattern of attachment can protect the child against the harmful effects of an abusive parent. Protective factors are not just positive experiences; an exposure to a stressful experience when dealt with successfully can boost an individual's self-esteem making it a protective factor, or let's say promote coping. An attitude or temperament of an individual (such as easy going, carefree) may also serve as a protective factor. It is important to note here that neither the diathesis nor the stress by itself is sufficient to cause a disorder, but the combination of these two can lead to abnormal behaviour. But, the presence of protective factors can promote resilience during stressful and vulnerable situations.

The biopsychosocial approach is extremely promising but has often been targeted for being merely descriptive and theoretical rather than clearly articulating how biological, psychological, and sociocultural risk factors interact and what can be done to treat or protect an individual. Nevertheless, the approach gives a holistic view to make sense of psychopathology in an individual and thus is a quite important one.

3.7 LET US SUM UP

- The humanistic view emphasizes on man's capacity of goodness, creativity and freedom. It believes that humans should not be restricted in their endeavours and if done so they are capable of realizing their innate potential and developing in positive and self-fulfilling ways. Here, psychopathology occurs when the personal growth of the individual is impeded, blocked or distorted by the society.
- Early social deprivation, severe emotional trauma, neglect and abuse at the hand of caregivers, inadequate parenting styles, divorce, marital

discord, and disturbed communication patterns could be some of the sources or contributory factors of psychopathology in people.

- Low socioeconomic status, being subjected to prejudice and discrimination due to gender, race, or ethnicity are associated with greater risks for various disorders.
- The biopsychosocial approach talks about interaction of biological, psychological and social factors to understand psychopathology. The approach is extremely promising and gaining wide popularity but at times ends up being merely theoretical.
- The occurrence of maladaptive behaviour is a product of an individual's predisposition (diathesis) to a disorder and of certain stressors in his/her environment that challenge him/her.
- Protective factors help us in understanding why some people may remain resilient and do not develop a disorder despite the presence of diathesis and stressor.

3.8 KEY WORDS

Self actualization: this concept is at the top of Maslow's hierarchy of needs. It is the full realization of an individual's innate potential, development of one's abilities and appreciation for life at large.

Self: It is our image of ourselves and a question to the answer, "Who am I?"

Phenomenal field: It is our subjective reality, entire panorama of one's life including their experiences, objects, people, behaviour, thoughts, ideas etc.

Ontological insecurity: it is the feeling that one is threatened by nonbeing.

Existential anxiety: it is the angst and anxiety about our existence, involving issues like meaning of life, freedom, and death.

Secure attachment style: it is the ability to form safe and loving relationships with others. Such a person can trust people around him/her and can be trusted by others. They are capable of receiving and giving love to others and connect with others with ease.

Double-bind communication: it's a disrupted communication pattern wherein the individual receives two or more reciprocally conflicting messages. It's a situation wherein the person can neither opt out nor resolve it.

Diathesis-stress model: it explains the trajectory of a disorder as a result of an interaction between a predisposition or vulnerability (diathesis) and stress caused by life experiences (stressors).

3.9 ANSWERS TO SELF ASSESSMENT QUESTIONS

Answers to Self Assessment Questions 1

1. Phenomenal field
2. (d) Unconditional positive regard
3. True

Answers to Self Assessment Questions 2

1. the degree to which our actions are congruent with our beliefs, values, and desires, regardless of the external pressure of the society to confirm to certain beliefs or practices.
2. Engulfment, implosion, and petrification

Answers to Self Assessment Questions 3

1. Authoritative parenting style
2. Secure, ambivalent, avoidant, and disorganized
3. Disorganized attachment

3.10 UNIT END QUESTIONS

1. According to humanistic approaches, what are the possible reasons for development of maladaptive behaviour?
2. Discuss how the existential viewpoint understands and explains the idea of abnormality.
3. Explain how the existential notions of angst and anxiety may contribute to psychopathology.
4. What effects does parental psychopathology have on children?
5. Does early deprivation and abuse have a role to play in development of psychopathology? How?
6. Discuss the impact of marital discord and divorce on children. How does it impact adults?
7. What is a diathesis-stress model? How does it explain psychopathology?
8. What are the sociocultural factors of abnormal behaviour? How do they contribute to the development of abnormal behaviour?
9. Why is it necessary to pay attention to the role of sociocultural factors in mental disorders? Explain.

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UNIT 4: ASSESSMENT OF PSYCHOPATHOLOGY*

Structure

- 4.1 Learning Objectives
- 4.2 Clinical Assessment: Definition and Elements
- 4.3 Types of Clinical Assessment
- 4.4 Ethical Issues in Assessment
- 4.5 Let Us Sum Up
- 4.6 Key Words
- 4.7 References
- 4.8 Suggested Readings

4.1 LEARNING OBJECTIVES

After studying this Unit, you would be able to,

- *Define clinical assessment in psychopathology;*
- *Describe types of clinical assessment; and*
- *Discuss ethical issues in assessment of psychological disorders.*

4.2 CLINICAL ASSESSMENT: DEFINITION AND ELEMENTS

You already know that a standardized procedure is followed to define and diagnose a mental condition as a psychological disorder. This implies that assessment of psychological disorder also requires formal instruments and techniques. Bootzin (1997) has defined clinical assessment “as the collection, organization, and interpretation of information about a person and his or her situation.” The question arises, is any kind of information from any source useful for making a clinical assessment or should it be specific information from reliable sources? The answer lies in the requirements of assessment.

Clinical assessment has the following elements for which information must be collected (Rosenberg & Kosslyn, 2011):

- *Diagnosis:* information is obtained to make a diagnosis of a possible psychological disorder/problem.
- *Course:* information that helps to monitor the course of the psychological disorder, i.e., whether the symptoms will worsen or improve over a given time.
- *Treatment:* to determine the type of treatment that will be beneficial and the progress of the treatment.
- *Clinician’s Perspective:* the theoretical perspective in which a clinician

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has been trained will influence the required type of information, e.g., a clinician trained in the behaviorist's tradition will be interested in the role of family environment and learning in causing a disorder.

- *Setting*: the extensiveness and comprehensiveness of information is dependent on the setting of assessment. The information collected for a research project will be more extensive and comprehensive.
- *Finance*: collection of information depends on the payment, that is, focus will be more on obtaining the information that is paid for.
- Reliability, Validity, and Cultural Bias of Assessment Tools

Assessment tools must be reliable, valid, and culturally fair. Reliability means consistency of measurement, that is, same scores should be obtained for a person when assessed by different clinicians using the same method. For example, if a person scores high on a test of trait anxiety when assessed by one clinician, he should get the similar score when assessed on the same test by another clinician. Secondly, the assessment tools must be valid, that is, they should measure what they intend to measure. If a test intends to measure trait anxiety, then it should have items that measure the anxiety as a trait (a stable personality characteristic) rather than items that measure anxiety temporarily caused by a situation like an exam or an interview. An assessment tool may be reliable but not valid, thus, a measure of trait anxiety may show consistent scores for a person assessed by different clinicians, but its items may not be appropriate to measure trait anxiety. Cultural bias is another important aspect that may affect the validity of the assessment tools. Many assessment tools are culturally contextual, i.e., constructed by the clinicians and/or researchers belonging to a specific culture and for the individuals who also belong to that same culture. Hence, culture bias may affect the construction as well as scoring of assessment tools. If a culturally biased test is used for assessment of individuals belonging to a different culture, or if scores obtained for people of different cultures are compared with each other, it may not provide the valid information (Poortinga, 1995).

Box 4.1 Time to Review:

- Describe the various elements of clinical assessment.
- Discuss the issues of reliability and validity in clinical assessment.

4.3 TYPES OF CLINICAL ASSESSMENT

Clinical assessment includes information about the *biological*, *psychological*, and *sociocultural* factors that may underlie the psychological disorders. Let us study the details of each type of assessment in the following sections (Rosenberg & Kosslyn, 2011):

(1) Biological Assessment

(a) Neuroimaging techniques

One of the underlying causes of some psychological disorders may be structural and functional abnormalities of brain, such as schizophrenia. Neuroimaging techniques are used to measure such abnormalities by providing brain scans, through X-rays, CT scan, MRI, fMRI, and PET.

- *Assessment of the Brain Structure through X-rays and Computerized Axial Tomography (CT/CAT scan) and Magnetic Resonance Imaging (MRI):*

X-rays is the oldest neuroimaging technique, which is used to take pictures of the patient's brain. It is now used in an advanced technique, called computerized axial tomography (CT/CAT). 'Tomography' is a Greek word, which means section. In *CT scan*, a moving beam of X-rays penetrates a horizontal cross-section of the brain and scan it at 360 degrees. An X-rays detector detects the X-rays as it passes through the cross-section and an image is formed which shows any anomaly in the brain structure, such as increased or decreased tissue density, lesions, and tumors. This procedure is repeated with the different horizontal cross-sections of the brain. The multiple X-rays images obtained are fed into a computer, which integrates the information and produces two-dimensional image of the brain. It is an invasive procedure as X-rays pass through the brain (overexposure to X-rays can be hazardous as it may cause mutations and cancer).

Magnetic Resonance Imaging (MRI) is a more precise diagnostic technique as it measures and provides sharper images of the more subtle abnormalities of the brain which may go undetected by CT scan. The person is put into a cylindrical hollow with strong magnetic fields at different angles. When the first magnetic field is switched on, it causes the atoms of the body to align with it. Then second magnetic field at a different angle is switched on which causes some of the atoms aligned with the first magnetic field to move away from it and align with the second magnetic field. When the second magnetic field is switched off, the atoms aligned with it try reorienting to the first field. The reorientation causes the atoms to emit a signal. These signals are recorded by a computer, which forms the image from these signals. These images help to detect the location of the atoms in the brain. Any changes in the location and density of the atoms in the patients' brain in comparison to the images of the normal brain, indicates a structural abnormality. MRI helps in the detection of excessive growth or shrinkage in the brain structures, for example, enlarged ventricles and shrinkage of the gray matter can be seen in some patients with schizophrenia (Schneider-Axmann et al., 2006). It is a non-invasive and a safe procedure as no harmful rays or chemicals enter the body.

- *Assessment of the Brain Function With PET Scans and fMRI*

Sometimes abnormal brain functioning rather than the abnormal brain structure may lead to psychological disorders. Different areas of the brain are responsible for different functions, such as talking, reading, holding, judging, etc. When a specific area of the brain is involved in a function, the blood flow to that area increases. Examining the difference in the blood flow in different brain areas can tell us the involvement of that area in a given function. For example, there is an increased blood flow to the limbic system, especially amygdala when strong emotion like fear is experienced (Pissioti et al., 2003).

Positron Emission Tomography (PET) is the functional neuroimaging technique used for measuring blood flow in the brain. A very small amount of a radioactive substance is introduced into the blood stream. When a person

performs a specific task, the blood flow increases to the brain area activated for carrying out that task. As the blood flow increases, the radioactive substance also increases in the active area of the brain. The measure of radiations in the different (more active and less active) areas of the brain are fed into the computer which integrates the information and produces a three-dimensional colored image of the brain with different levels of activity in different areas. Brighter colors typically indicate greater level of activity. Though PET is high in precision, but it is not used frequently because of two reasons, first, it is a highly invasive procedure where radioactive substance is introduced into the bloodstream and second, it is a very expensive and time-consuming procedure.

Functional magnetic resonance imaging (fMRI) is the most widely used method for measuring human brain function for research purposes. The activated brain areas draw blood more quickly than the oxygen carried by the hemoglobin in the blood can be used. Hence, the activated areas of the brain have more oxygenated blood than the less or not activated areas of the brain. This difference in the oxygen level of blood in differently activated brain areas is translated into fMRI images. It is a non-invasive procedure as it requires neither radiation nor any chemical for measuring the brain function.

It must be noted that PET or fMRI cannot precisely detect which parts of the brain are on or off while performing a task. Brain is never switched off, not even during sleep. These assessment techniques can only measure a relative activation of the specific part of the brain while performing a task.

(b) Biochemical assessment

Level of Neurotransmitters and Hormones

Biochemical imbalances may lead to psychological disorders, e.g., low level of a neurotransmitter, GABA (Gamma Amino Butyric Acid) is implicated in generalized anxiety disorder (GAD), low level of a hormone, thyroxine is involved in depression. There are several ways in which levels of neurotransmitters and hormones in the body can be studied as described below:

Magnetic resonance spectroscopy (MRS): It is a non-invasive procedure to measure the changes in the neurotransmitter levels in the brain. It compares the chemical composition of normal brain tissue with the patient's brain tissue. The machine for MRI is used to perform magnetic resonance spectroscopy. Hydrogen ions or protons of metabolites (metabolites are the product of metabolism) are analyzed, for example, homovanillic acid is the metabolite of the neurotransmitter, dopamine. Some other metabolites of various neurotransmitters are, amino acids, choline, creatine etc. MRS measures the frequency of these metabolites which are then plotted on a graph. By comparing the frequency of a metabolite in a patient with a normative group, abnormally low or high tissue growth in the specific brain area can be detected.

Blood, Urine, and Cerebrospinal Fluid Samples: the level of a neurotransmitter in the body can be inferred through the level of its metabolite in blood, urine, or cerebrospinal fluid. For example, to test the

dopamine hypothesis (increased level of dopamine leads to schizophrenia), the level of its metabolite, homovanillic acid was tested in the cerebrospinal fluid of the patients with schizophrenia. Certain hormones have also been found to be involved in psychological disorders, for example, cortisol, a stress hormone has been reported to be at an elevated level in the patients with depression. Further, low levels of thyroxine, a hormone secreted by thyroid gland has been implicated in depression. The level of thyroxine can be measured through a blood test (Pfennig et al., 2004).

PET Techniques: the key aspect is that there are specific receptors in the brain for each neurotransmitter, for example, dopamine has five receptors, form D1 to D5, out of which D2 has the maximum affinity for dopamine. Some psychological disorders may involve either abnormally low/high number of receptors or hypo/hypersensitive receptors for a specific neurotransmitter. The proliferation or sensitivity of the receptors can be found through PET technique which uses ligands (radioactive molecules mimicking neurotransmitters). Let us say, a researcher wants to study the receptor system (x) for a neurotransmitter X. To study it, a ligand that mimics neurotransmitter (X) is injected into the bloodstream of a patient, it travels with the bloodstream and binds itself to the receptors (x). The radioactive substance in the receptor system (x) emits signals which are detected by the computerized system and translated into images. This technique helps the researcher to examine the location as well as the functioning of the receptor system.

(c) Neuropsychological Assessment

With the help of neuropsychological testing, brain functioning is inferred through measurement of behavioral responses. Neuropsychological assessment helps to make a distinction between the neurological and psychological causes of a dysfunction, for example, memory problems may be due to neurological damage as well as due to a psychological disorder, such as depression. Further, it also helps in the detection of brain damage which may be the underlying cause for a psychological problem, e.g., damaged prefrontal cortex may lead to drastic personality changes.

Neuropsychological assessment includes tests that measure simple (matching the verbally presented name of an animal to its picture) to complex abilities (problem solving tasks). Examples of neuropsychological tests are Bender Visual-Motor Gestalt Test-II (2nd edition) (Bender, 1963; Brannigan & Decker, 2003), Facial Recognition Test; Benton et al., 1983). In the Bender Visual-Motor Gestalt Test-II, there is a series of patterns ranging from simple to complex and the patient is asked to reproduce those patterns. This test measures the visual-motor coordination and helps to detect memory problems and learning disorders (Brannigan & Decker, 2006). The Facial Recognition Test has several variations, in one such variation, the patient is shown a picture of the target face and then shown six pictures out of which he/she must recognize the target face.

Along with individual neuropsychological tests, there are neuropsychological batteries also which consist of a group of tests, each measuring a specific ability. For example, Luria-Nebraska Neuropsychological Battery (Golden, Hammeke, & Purisch, 1980) has 14 tests which measure different abilities,

the Halstead-Reitan Neuropsychological Battery which was developed by Halstead and modified by Reitan (Reitan & Davison, 1974), consists of 10 tests measuring different abilities. The neuropsychological batteries can be administered as a whole or in parts, i.e., the neuropsychologist may administer only some of the specific tests from the battery according to the requirement based on the patient's report.

While the functional neuroimaging detects the activation of a specific area of brain during performance of the given task, the neuropsychological testing gives a general idea of brain functioning, i.e., efficient task performance, effortful task performance, failed task performance. Based on the localization theory (brain's four lobes are specialized in performing specific tasks, e.g., frontal lobe is responsible for problem solving, decision making, error detection, etc.), neuropsychological tests can suggest the damaged brain area/s. The neuropsychological assessment is less precise in comparison to the advanced scanning techniques, such as CT scan, MRI, fMRI, PET but it is useful as it is non-invasive, far less expensive and does not require machinery and tools. Nevertheless, the results of neuropsychological assessment must be corroborated with the neuroimaging techniques before planning the treatment and rehabilitation of the patient.

(d) Psychophysiological Assessment

According to Grings and Dawson (1978), psychophysiology is a field of study that examines the relationship between the psychological events and the accompanying bodily changes. For example, anxiety may lead to excessive sweating, breathlessness, palpitations. Some of the psychophysiological measures are electrocardiogram, ECG to measure the heart rate, Electroencephalogram (EEG) to measure brain activity which may help in detection of epilepsy, brain lesions, Portable BP machine to measure blood pressure, electromyogram (EMG) to measure muscle tension, and galvanic skin conduction response (GSR) to measure skin conductance or electrodermal response (strong emotions, like fear activates the sympathetic nervous system which in turn activates the sweat glands that produce excessive sweat which increases the electrical conductance of skin. However, a drawback is that sympathetic nervous system is activated in other emotions also such as excitement or joy which may also lead to excessive sweating, thereby increasing the skin conductance!

Box 4.2 Time to Review:

- Identify some techniques of biological assessment.
- What is the relevance of neuropsychological assessment in the presence of technical advancements in the field of brain imagery?

(2) Psychological Assessment

Psychological functioning includes cognitive, emotional, and behavioral content and processes all or some of which may be disrupted in a psychological disorder. Further, these processes determine an individual's ability to perform daily life activities at present and in future also. That is, the greater the disruption in cognitive, emotional, and behavioral content and processes, the more severe the disorder will be and poorer will be the prognosis. Hence, it is important for the clinicians and researchers to assess

an individual on these aspects through various psychological techniques, such as clinical interview, psychological testing, and behavioral assessment.

(a) Clinical Interview

A clinical interview is a question-answer session where the clinician asks the questions to patients about their symptoms, relevant history (medical, educational, legal), personal, social, and occupational functioning. Three types of information can be obtained from the clinical interview, content of the patient's answers, the way the questions are answered (Westen & Weinberger, 2004), and the questions which are avoided or not answered.

Clinical interviews can be *structured*, *semi-structured* and *unstructured*. A structured interview consists of a fixed number of questions that are asked in a predetermined order. An example of a *structured interview* is the *Structured Clinical Interview for DSM-IV, Axes I and II* (SCID-I and SCID-II; First et al., 2002). It is usually used for research purposes. It consists of different modules based on different diagnostic categories given in DSM-IV-TR. In each module, first question is to find the presence or absence of symptoms of the specific diagnostic category. If the patient's answer to the first question is in negative, then the rest of the questions of that module are skipped and the clinician moves to the next module. The SCID gives a quick information about the presence or absence of a disorder, however, it does not provide the opportunity to interpret the patient's answers and to probe further for relevant information. For this purpose, many clinicians use a semi-structured interview as they want to ask some specific questions regarding the patient's presenting complaint. A *semi-structured interview* consists of a list of standard questions to which the clinician adds own questions. These follow up questions help the clinician to get additional information or to corroborate and verify the information obtained through standard questions. During the semi-structured interview, the clinician may examine the mental status of the patient to assess his/her psychological functioning.

The mental status examination includes questions about the patient's personal information, presenting complaint, history of the presenting complaint, daily life functioning, reasoning ability such as simple arithmetic reasoning, memory and judgement, orientation in time and space. For example, the clinician may ask the patient's name and other personal details, like date of birth, address; to check orientation to time and space, the question pertains to the time of the day and present location of the patient; to check working memory, a digit span test can be used. The patient's responses to the standard questions of mental status examination helps the clinician to develop hypotheses about the diagnosis, dysfunction/s, course, and prognosis of the disorder. It gives an overall assessment of psychological functioning of the patient (Rosenberg & Kosslyn, 2011).

An *unstructured clinical interview* does not have fixed questions, the clinician asks questions according to his/her understanding of the client's problems. The clinician is free to ask questions which are specific to the problems and issues of the patient. Mostly, patient's response to a previous question serves as a cue for the clinician's next question and so on. A major disadvantage of the unstructured interview is low reliability. Since

different clinicians may ask different questions as per their understanding of the patient's situation, so they might obtain different sets of information, thereby making different diagnoses for the same patient. On the other hand, the structured interview is reliable, however, it may not be valid as it may ask questions that are not relevant to the patient's problems (Meyer, 2002). A semi-structured interview combines the qualities of both structured and unstructured interviews which ensures greater reliability and validity. Additionally, irrespective of the type of the interview used, the clinicians make use of patient's self report and their own observations of the patient during the interview sessions.

Patient's Self-Report

Since all the symptoms are not directly observable, such as worry, fears, hallucinations, etc. so clinicians depend on the patient's self report to develop a hypothesis about the patients' problems. The clinician must know about the patient's history such as developmental, educational, family, social, occupational history to understand the presence of psychosocial stressors that may play a causal role in the patient's current problems and disorder. The information about psychosocial stressors provides the clinician a perspective or a framework to diagnose the current disorder as adaptive or a maladaptive response to those stressors (Kirk & Hsieh, 2004). Though, self-report is an important source of information, however, it may have problems regarding authenticity as it may get affected by malingering, factitious disorder, and biases. Malingering means the patients may give an exaggerated account of their symptoms for a personal gain, such as monetary benefit or escaping from an undesirable situation, like arrest. Factitious disorder is pretending of having symptoms or even induce symptoms to take the role of a sick person for getting attention from significant others or clinicians (any obvious cause such as personal gains, e.g., money or escape is not present).

Biases may also creep in self-reports intentionally or unintentionally. For example, since the reporting of history is retrospective, so the patient depends on memory which at times may fail causing the patient to fill the gaps through confabulations. Emotions may also lead to bias leading the patient to maximize the negative or disturbing events and minimizing the positive events. Sometimes, patients want to portray themselves in a certain manner which also cause a reporting bias (Meyer, 2002). In some cases, due to psychological dysfunctions, such as disorientation to time and space or delusions, the patient may confuse reality with imaginary events, which may lead to inaccurate self-report. Yet another source of bias in self-reporting is embellishments, i.e., to look good in front of others, the patients may report an exaggerated account of their achievements. Due to the possibility of inaccurate self-reports, the clinician must also make thorough observations of the patient so that in case of incongruence between self-report and observations, they could cross check with other sources, like caregivers, family members, colleagues, medical and/or prison records (Rosenberg & Kosslyn, 2011).

Observations

Observations about the client are an important source of information about the client's problems, issues, dysfunctions, and functional status. The clinician

can make observations about the patient's appearance, emotions, behavior, speech, movement, and mental processes. For example, is the appearance of the patient clean? Is he/she appropriately dressed according to the occasion as well as weather? Does the patient express distress/ aggression? Are there signs of abnormal behavior, such as inappropriate body language? These observations sometimes provide more valuable information about the patient than the patient's self-report of his/her problems.

Thus, a clinical interview is a rich source of information about the patients' psychological functioning and psychosocial stressors. However, its reliability and validity are lower than another assessment technique, the psychological testing, which is widely utilized by the clinicians.

(b) Behavioral and Cognitive Assessment (Kring et al. 2012):

- Cognitive-Behavioral perspective oriented clinicians assess four sets of variables, SORC (Kanfer & Philips, 1970)

S = Stimuli, the environmental situations that precede the problem. The clinician may try to identify the stressors that tend to elicit a given maladaptive behavior.

O = Organismic, referring to both physiological and psychological factors assumed to be operating under the skin. Perhaps, the client's fatigue is caused in part by excessive use of alcohol or by a cognitive tendency toward self-deprecation manifested in such statements, "I never do anything right, so what is the point trying?"

R = Overt responses. Clinicians determine what behavior is problematic, as well as the behavior's frequency, intensity, and form, e.g., a client might say that he/she is not assertive. Does the person mean that he/she is not assertive in all situations and with everybody or its specific to situations and people.

C= Consequent variables, events that appear to be reinforcing or punishing the behavior in question, e.g., when the client does not show assertiveness it pays by maintaining the status quo, thereby keeping the person from being assertive.

- A behaviorally oriented clinician attempts to specify SORC factors for a particular client.
- Skinnerian clinicians under-emphasize the O variables and focus more on S, R, and C.
- Cognitively oriented behavior therapists pay less attention to C variables because cognitive-behavior paradigm does not emphasize reinforcement.
- The information about SORC is gathered by several methods such as direct observation of behavior in real life as well as in contrived settings, interviews, and self-report measures (Bellack & Hersen, 1998).

(c) Psychological Tests

Psychological tests are the standardized measures of psychological functions (cognitions, emotions, and behavior). Some tests may measure the general areas of functioning, such as intelligence, personality while others may

measure a specific area of functioning, e.g., verbal intelligence, neuroticism, extraversion etc. Let us see some of the tests in detail (Rosenberg & Kosslyn, 2011).

Cognitive Assessment

Intelligence tests are one of the tools to assess cognitive functioning. Two widely used intelligence tests are the *Wechsler Adult Intelligence Scale*, 4th edition (WAIS-IV, revised in 2008) and the *Wechsler Intelligence Scale for Children*, 4th edition (WISC-IV, revised in 2003). An intelligence quotient (IQ) is obtained from these tests. The different ranges of the IQ scores corresponds to the different levels of the intellectual ability, e.g., an IQ range of 85-115 corresponds to normal intelligence; an IQ between 70 and 85 implies borderline intelligence whereas an IQ score of 70 and below indicates intellectual disability. Along with the IQ scores, these tests also give scores on four abilities, namely, *verbal comprehension*, *perceptual reasoning*, *working memory*, and *processing speed*. Further, the WAIS-IV and WISC-IV have age and gender norms which enables the clinician or researcher to compare the individual's scores on various subtests as well as overall IQ with the group of individuals of same age and gender. With the help of these tests, the clinician can assess the various cognitive abilities of the person. Currently, effect of cultural factors on the test scores have been taken into account, hence the cultural factors have been minimized in most of the intelligence tests (Poortinga, 1995). Furthermore, norms of specific ethnic groups have also been provided to avoid cultural biases.

Personality Assessment

Different aspects of personality can be assessed through various personality tests and inventories.

Personality Inventory: "an inventory is a questionnaire with items pertaining to many different problems and aspects of personality. Inventories usually contain test questions that are sorted into different *scales*, with each scale assessing a different facet of personality" (Rosenberg and Kosslyn, 2011). With the help of an inventory a clinician can diagnose and predict the problems and disorders currently present or likely to occur in a person. *Minnesota Multiphasic Personality Inventory*, 2nd edition (MMPI-2; Butcher & Rouse, 1996) is one of the most famous and used inventory across the world. It was developed in 1930s to identify mental disorders in patients. In 1989 it was revised, and its items were updated to include racial and ethnic aspects. It is a very lengthy inventory with 567 items which measures a person's cognitive, emotional, and behavioral content and processes and takes about 60 to 90 minutes to be completed. Its shorter version has 370 items. It is available in multiple languages as a paper-pencil test, as audio recording and as a computerized version also. The MMPI-2 has two scales, validity, and clinical scales. The validity scales assess the validity of the person's responses, i.e., it checks for malingering, factitious disorder, and embellishments in the person's self-report.

Clinical scales measure the symptoms of different mental disorders and problems, e.g., schizophrenia, hypochondriasis, depression scales. However, these are indicators for various disorders and do not diagnose these disorders as the MMPI-2 was not designed to diagnose the various disorders enlisted

in DSM-IV-TR. So instead of giving a specific diagnosis, it gives a profile of the person with symptoms of various disorders as indicated by his/her scores on various clinical scales.

Projective Tests: Clinicians use projective tests to assess those aspects of personality which are not amenable to direct questions of an inventory. Projective tests can be semi-structured and unstructured depending on the type of stimuli used. A semi-structured projective test has less ambiguous stimuli, like in Rotter's Incomplete Sentence Blank, sentence stems are given which must be completed by an individual, (e.g., My father.....) or it may have pictures like in Rosenzweig Picture-Frustration Study. In this test, caricatures are given depicting different situations with dialogue along with a blank figure and a blank dialogue box. The respondent is required to imagine him/herself in the place of that blank figure and must respond to the given dialogue in that situation.

An unstructured projective test on the other hand consists of completely ambiguous items such as inkblots or stick figures or must draw some figures such as a human figure, house, tree etc. and tell/write a story about those pictures. A very famous unstructured projective technique is Rorschach Ink Blot test developed by Herman Rorschach (1884-1922). It is based on the premise that the patient imposes a structure to the inkblot which can be used to infer the patient's unconscious conflicts, motives, and desires. The subjective interpretation of the patients' responses by clinicians makes it less reliable and less valid (Anastasi, 1988). These issues were addressed by John Exner (1974) who developed a reliable scoring system for the Rorschach Test (Sultan et al., 2006). Although, it assesses psychosis in patients, however, it is not an effective tool for assessment of psychological disorders (Wood, Lilienfeld, et al., 2001).

Thematic Apperception Test (TAT) is also a projective technique developed by Christiana Morgan and Henry Murray in 1935. It consists of cards with black and white drawings of situations mostly with people and aims to infer about individuals' motivations, thoughts, and emotions without directly asking them. The test involves asking a person to make a story about the situation in a card. It is presumed that the story constructed by the person reflects his/her unconscious motivations, beliefs, desires, fears etc. (Murray, 1943). The clinician may interpret the responses on their own or they can use the scoring system (very few clinicians use the scoring system) (Pinkerman, Haynes, & Keiser, 1993).

Like other projective techniques, TAT has limitations also in relation to reliability and validity. It is not possible for the clinician to distinguish between what the individuals are thinking, feeling and how they want to think and feel (Lilienfeld, Wood, & Garb, 2000). This makes the test questionable as without directly asking the individuals about their motivations and desires, valid information will not be obtained, or the interpretation of the test responses will not be corroborated. Despite, several shortcomings, the psychological testing is a widely used measure of psychological functioning of an individual in a comprehensive, standardized manner.

Box 4.3 Time to Review:

- Draw a distinction between structured and unstructured clinical interview.
- Name four personality assessment tests.
- Describe the importance of observation in the clinical assessment.

(3) Socio-cultural Assessment

You can recall from the definition and criteria of the psychological disorder discussed in Unit 1 that social and cultural contexts are important criteria for understanding a psychological disorder. According to Rosenberg and Kosslyn (2011), symptoms cannot be understood in isolation and should be studied in the context in which these arise. Therefore, social factors form an important aspect of clinical assessment, such as, family environment, role of community, cultural group of the patient as well as the clinician. All these factors may influence the assessment as well as treatment of the patient. For example, is it the family or the community that takes the decision for the assessment and treatment? In some traditional societies, women are not allowed to consult the modern-day physicians in hospitals or clinics for gynecological issues, e.g., childbirth, infertility, etc. Due to a medical complication or an emergency, even if the family relents but the community is adamant about the social norms then family cannot go against the community's decision and so many women and neonates lose their lives. Similarly, a community may not allow their members to consult a mental health professional as they strongly believe that mental illness is a consequence of religious wrongdoings and God's curse and should only be treated by 'puja' and rituals by the priest.

Activity

Observe the socio-cultural context you live in and find out what factors influence the thoughts and behaviour of people in such context. For instance, in certain communities, women are not allowed to travel unless there is an emergent reason like medical requirements. Notice such aspects and reflect on the consequences of such socio-cultural practices, values and beliefs on the mental health and well-being of people.

Arthur Kleinman (1988) has illustrated the importance of social and environmental factors in making an assessment through an example: "If a man has lost energy because he has contracted malaria, has a poor appetite as a result of anemia (due to a hookworm infestation), has insomnia as a result of chronic diarrhea, and he feels hopeless because of his poverty and powerlessness, does the person have depression? His symptoms meet the criteria for depression, but isn't his distress a result of his health problems and social circumstances and their consequences?" Without taking into the context of his problems, we may end up making a wrong diagnosis of depression for this person which would stall the process of assessment and treatment.

(a) Family functioning

People's mental health can be affected by their family functioning which includes the family environment, i.e., organization of the family,

family structure (joint, nuclear), family controls, conflicts, and values, communication patterns, the relationship status among the family members, such as are they close/distant to each other, are they so close to each other that they interfere in each other's lives at the cost of privacy etc. Family functioning can be assessed through unstructured clinical interview by asking some or all family members about their family functioning. It can be more systematically assessed by using observations, and standardized tools with a set of questions which can be answered by one or more family members, like the *Family Environment Scale* (Moos & Moos, 1986), *Family Adaptability and Cohesion Scales, Version 3* (Olson et al., 1985). With the help of these assessment techniques, a profile of the family can be prepared which gives a clearer picture of the family environment, its effect on the family members and the areas which require intervention (Ross & Hill, 2004).

(b) Community

A person's community is also a determinant of his/her mental health. A person with a low socioeconomic status is more likely to suffer from psychological disorders not only because of his family environment but also because he/she is most likely to live in a poor neighborhood with high rates of crime, substance use like alcohol, marijuana which exposes him/her to violence where he/she can be the victim as well as the perpetrator. The community can be defined as the place or space in which people spend most of their time, it can be their neighborhood, school, or workplace. Some jobs may be highly demanding and stressful, such as mining, army, police. Most of these jobs may force the family members to live apart as family stay may not be possible at the place of posting. Absence of a family member, usually a spouse adversely affects the other spouse who must take the entire burden of the family. Besides, the work conditions can involve uncertainty and life-threatening situations (being maimed or killed in a blast, battle with enemies). Such work settings may cause "burn out" in employees (Aziz, 2004; Lindblom et al., 2006). Burn out is not a psychological disorder but a psychological condition that resembles depression (Maslach, 2003). Hence, the clinician must consider the role of community factors while assessing an individual for a psychological disorder (Rosenberg & Kosslyn, 2011).

(c) Culture

The importance of cultural influences in the diagnosis of psychological disorders can be understood by the presence of 'cultural syndromes.' That is, not only description of symptoms of various globally prevalent psychological disorders, such as depression, anxiety disorders depend on the culture of the patient but there are some psychological disorders which are culture specific, such as "kayak angst" (a disorder reported in Eskimos characterized by fear of being lost in the snow-covered dark surroundings with barely any landmarks). Culture of a patient can influence the way the symptoms are reported quantitatively and qualitatively which affects the assessment and diagnosis of a psychological disorder. For example, while many Americans are less inhibited in sharing their complaints about anxiety or depression, several south Asian people are likely to report somatic symptoms to indicate their anxiety or depression. A study by Tareen, Hodes, and Rangel (2005)

reported a study on anorexia nervosa. The researchers found that while white British teenagers reported fear of fatness and preoccupation with their body weight (which are a part of criteria for anorexia nervosa), the non-white (south Asian origin) British teenagers instead of reporting fear of becoming fat or preoccupation with body weight, reported loss of appetite (not enough criteria to meet the diagnosis of anorexia nervosa). Thus, the likelihood of being diagnosed with anorexia nervosa was decreased for the non-white (south Asian origin) British teenagers, despite presence of significant distress, impairment, and risk of harm. Thus, culture plays an important role in assessment and intervention of psychological disorders.

Box 4.4 Time to Review:

- What is the importance of assessment of family functioning for an assessment of psychological disorder in an individual?
- What is the role of community in clinical assessment?
- How the culture can be a source of bias in clinical assessment?

The Integration of Assessment Data

A *dynamic formulation* is prepared by integrating information obtained from the patient as well as other resources such as caregivers, colleagues, friends, and medical and prison (wherever applicable). This information includes biological, psychological, social, and cultural context of the patient. The *dynamic formulation* defines the patient's current condition and helps to hypothesize about the factors causing the patient to behave in maladaptive ways (Butcher et al., 2014). Further, integration of the assessment data into a coherent working model helps in diagnosis, prognosis, understanding the etiology of the disorder, and its treatment plan. A clinician or an interdisciplinary team of professionals, such as, psychologist, psychiatrist, neurologist, psychiatric social worker, nurse, physiotherapist, occupational therapists, speech therapists, community psychologists integrate the assessment data into a working model which helps in evaluation of the treatment outcome and in comparing the effectiveness of different therapeutic and preventive approaches (Butcher et al., 2019).

4.4 ETHICAL ISSUES IN ASSESSMENT

A clinician or a researcher conducting a clinical assessment has tremendous professional and social responsibility as it has personal as well as social implications. There is a thin line between abnormal and criminal behavior, for example, killing a person and pleading insanity due to hallucinations and delusions in the court of law. Thus, a clinical interpretation may identify a person as a patient or as a criminal. Since a clinical assessment can affect the person and the society, hence, clinicians and researchers should be aware of the sources of bias in the assessment process. According to Butcher et al. (2019) some of the potential sources of such biases are:

1. *Cultural bias of the instrument or the clinician:* Due to culturally loaded items, some psychological tests may not be valid to assess a patient from a different culture (Gray-Little, 2009). For example, asking a person from Sri Lanka to name first four presidents of USA to measure his/her general awareness is not valid as it is a culture/

country specific question. Similarly, if the clinician and the patient are from different sociocultural backgrounds, the clinician may not be able to assess the patient's behaviors, concerns, and situations objectively. For example, if a clinician is from an individualistic culture and the patient is from a collectivist culture, the clinician will not be able to understand the concerns of the patient regarding leaving a joint family system for career expansion. The clinicians and researchers must ensure that an assessment instrument is culturally fair, like MMPI-2 can be used with people from different cultures (Zapata-Sola et al., 2009).

2. *Theoretical orientation of the clinician:* clinicians are trained for specialization in a particular theoretical perspective which influences their perceptions and assumptions about a psychological disorder and its treatment. For example, clinicians trained in different perspectives, such as, behaviorism, humanistic psychology, psychoanalysis will assess the same presenting complaint differently. While the behaviorist will view the occurrence of symptoms due to learning, the psychoanalyst will view it as resulting from unconscious desires and motives, whereas a humanist will interpret it in terms of blocked personal growth. Likewise, they will suggest different treatments as per their theoretical perspective.
3. *Under-emphasis on the external situation:* overemphasis on internal factors such as personality traits as causation of a psychological disorder can lead to inaccurate assessment. So, the clinician may overlook the environmental stressors, which may be the actual cause for the disorder. It not only leads to inaccurate assessment of a patient's problems but may also encourage the clinician to take a different line of treatment. This may maintain or aggravate the problem, as the root cause of the problem (environmental factors) remains unaddressed.
4. *Insufficient validation:* Some psychometric procedures, such as unstructured clinical review, observation, patient's self-report and projective techniques have low validity. Therefore, despite being useful the data collected through such techniques should be cautiously interpreted.
5. *Inaccurate data or premature evaluation:* Sometimes, data may get contaminated due to uncontrollable extraneous (noise, time of the day, unfavorable circumstances of the patient) or internal factors (lack of motivation, dishonest responses by the patient). Further, an individual's data may be interpreted based on group's mean. Additionally, incomplete data may be interpreted. The assessment based on such inaccurate or inadequate data will also be inaccurate and may even cause harm to the patient as it adversely affects the treatment plan.

Clinical assessment can be used to the advantage of the person and the society by considering its strengths and weaknesses.

Box 4.1: Time to test your skills

Fill in the blanks:

- i) The _____ in which a clinician has been trained can influence the clinical assessment of an individual or a situation.
- ii) Assessment tools should be _____, _____, and culturally fair.
- iii) X-rays, CT scan, MRI, fMRI, and PET are the _____ techniques.
- iv) The abbreviation PET stands for _____.
- v) _____ and _____ are the examples of non-invasive and invasive neuroimaging techniques, respectively.
- vi) An example of a structured interview is the _____.
- vii) Intelligence tests are one of the tools to assess _____ functioning.
- viii) Projective tests can be _____ or _____ depending on the type of stimuli used.
- ix) “kayak angst” is an example of a _____ specific syndrome.
- x) _____ defines the patient’s current condition and helps to hypothesize about the factors causing the patient to behave in maladaptive ways.

Answer Key to Box 4.1: Time to test your skills

- i) theoretical perspective, ii) reliable, valid, iii) neuroimaging, iv) Positron Emission Tomography, v) MRI and PET, vi) Structured Clinical Interview for DSM-IV, Axes I and II, vii) cognitive, viii) semi-structured or unstructured, ix) culture, x) dynamic formulation

4.5 LET US SUM UP

In the present unit, you learned about the importance of assessment for psychological disorders. It plays a crucial role in diagnosis of a disorder, and understanding the causes and treatment/intervention of the disorders. The key elements involved in a clinical assessment were explained. Broadly, three types of assessment are there such as biological, psychological, and socio-cultural. Specific techniques under each of these categories were elaborated to provide a comprehensive understanding of the process of clinical assessment of psychopathology. Finally, the ethical issues encountered in clinical assessment were highlighted.

4.6 KEY WORDS

Clinical assessment: is the collection, organization, and interpretation of information about a person and his or her situation.

Magnetic Resonance Imaging (MRI): A more precise diagnostic technique which measures and provides sharper images of the more subtle abnormalities of the brain.

Positron Emission Tomography (PET): is the functional neuroimaging technique used for measuring blood flow in the brain.

Magnetic resonance spectroscopy (MRS): A non-invasive procedure to measure the changes in the neurotransmitter levels in the brain.

Neuropsychological Assessment: helps infer the brain functioning through measurement of behavioral responses.

Psychophysiology: A field of study that examines the relationship between the psychological events and the accompanying bodily changes.

Unstructured clinical interview: does not have fixed questions, the clinician asks questions according to his/her understanding of the client's problems.

Projective tests: Helps to assess those aspects of personality which are not amenable to direct questions of an inventory.

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