UNIT 3 PSYCHOTIC DISORDER DUE TO GENERAL MEDICAL CONDITION

Structure

3.0 INTRODUCTION

This unit deals with psychotic disorders caused by medical conditions. We start with explaining how these disorders caused by medical condition. Then we deal with the psychotic disorders assiociated with neurological disorders. Then we present the various features of psychotic disorders followed by symptoms of psychotic disorder. The symptoms include delusions and hallucinations which are explained in detail. Then we deal with the causes of psychological disorders due to medical conditions. Then we deal with defense mechanisms and treatment approaches to the psychotic disorders due to medical conditions.

3.1 OBJECTIVES

On completing this unit, you will be able to:

- Describe the medical conditions that cause psychotic disorder;
- Elucidate the Neurologic disorder that may cause psychotic symptoms;
- Explain the symptoms of psychotic disorders;
- Delineate the Causes of psychotic disorders due to medical conditions;
- Explain stress syndrome and postpartum psychosis;
- Describe the Defense mechanisms in psychotic disorders;
- Analyse the psychotic disorder in terms of Culturally defined disorder; and
- Enlist the various Treatment approaches to medically induced psychotic disorder.

3.2 MEDICAL CONDITIONS THAT MAY CAUSE PSYCHOSIS

According to the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV-TR*), the psychiatric presentation of a medical illness is classified as "the presence of mental symptoms that are judged to be the direct physiological consequences of a general medical condition." Therefore, understanding common psychiatric symptoms and the medical diseases that may cause or mimic them is of utmost importance. Failure to identify these underlying causal medical conditions can be potentially dangerous because serious and frequently reversible conditions can be overlooked. Proper diagnosis of a psychiatric illness necessitates investigation of all appropriate medical causes of the symptoms.

The following features suggest a medical origin to psychiatric symptoms:

- Late onset of initial presentation
- Known underlying medical condition
- A typical presentation of a specific psychiatric diagnosis
- Absence of personal and family history of psychiatric illnesses
- Illicit substance use
- Medication use
- Treatment resistance or unusual response to treatment
- Sudden onset of mental symptoms
- Abnormal vital signs
- Waxing and waning mental status.

Because multiple secondary causes of mental disorders exist, the major medical disorders that can induce psychiatric symptoms are listed in the Table below

Table: Medical Disorders that can Induce Psychiatric Symptoms*

Medical and Toxic Effects	CNS	Infectious	Metabolic/ Endocrine	Cardiopulmonary	Other
• Alcohol • Cocaine • Marijuana • Phencyclidine (PCP) • Lysergic acid diethylamide (LSD) • Heroin • Amphetamines • Jimson weed • Gamma-hydroxybutyrate (GHB) • Benzodiazepines • Prescription drugs	• Subdural hematoma • Tumor • Aneurysm • Severe hypertension • Meningitis • Encephalitis • Normal pressure hydrocephalus • Seizure disorder • Multiple sclerosis	• Pneumonia • Urinary tract infection • Sepsis • Malaria • Legionnaire disease • Syphilis • Typhoid • Diphtheria • HIV • Rheumatic fever • Herpes	• Thyroid disorder • Adrenal disorder • Renal disorder • Hepatic disorder • Wilson disease • Hyperglycemia • Hypoglycemia • Vitamin deficiency • Electrolyte imbalances • Porphyria	• Myocardial infarction • Congestive heart failure • Hypoxia • Hypercarbia	• Systemic lupus erythematosus • Anemia • Vasculitis

*(Adapted from Williams E, Shepherd S. Medical clearance of psychiatric patients. *Emerg Med Clin North Am*. May 2000; 18:2; 193.)

3.2.1 Neurologic Disorders that may Produce Ssychiatrtic Symptoms

Seizure disorder

Epilepsy is one of the most common chronic neurologic diseases, affecting approximately 1% of the US population. In India the prevalence is estimated to be 5.33 per 1000 population. Approximately 30-50% of patients with a seizure disorder have psychiatric symptoms sometime during the course of their illness. Increased psychopathology has been associated with different features (eg, seizure phenomenology, brain pathology, antiepileptic drug use, psychosocial factors).

In partial seizures, psychiatric signs abound, with memory dysfunction, affective auras, perceptual changes (e.g., hallucinations), and depersonalisation.

In temporal lobe epilepsy, the most common psychiatric abnormality is personality change. Development of psychosis is also described in temporal lobe epilepsy.

Parkinson disease

Parkinson disease (PD) is a disorder characterised by movement abnormalities caused by degeneration of the neurons in the substantia nigra. The prevalence of major depression in patients with PD is estimated to be 40%, with prevalence rates of 4-70%. The anxiety syndromes in PD are apparently related to an underlying brain disease, with evidence implicating noradrenergic dysfunction. In several studies, anxiety syndromes developed before or after the onset of motor symptoms.

Brain tumors

Brain tumors and cerebrovascular disease are important causes of psychiatric symptoms and patients with these diseases can present with virtually any symptom. A complete clinical history and neurologic examination are essential in diagnosing either condition. Given the nature of the onset and presentation of a cerebrovascular event, it is rarely misdiagnosed as a mental disorder. However, up to 50% of patients with brain tumors reportedly have manifestations of a psychiatric nature.

Frontal lobe tumors, which are responsible for approximately 88% of the patients with psychiatric symptoms, can elicit presenting signs such as cognitive impairment, personality change, or motor and language dysfunction.

Limbic and hypothalamic tumors can cause affective symptoms such as rage, mania, emotional lability, and altered sexual behaviour. They can also produce delusions involving complicated plots.

Hallucinations, which are often considered the hallmarks of psychiatric illness, can be caused by focal neurologic pathology.

Multiple sclerosis

Multiple sclerosis (MS) is a demyelinating disorder characterised by multiple episodes of symptoms of a neuropsychiatric nature related to multifocal lesions in the white matter of the CNS.

Symptoms can be categorised as cognitive and psychiatric. Abstract reasoning, planning, and organisational skills are some of the functions also affected by MS. Dementia may eventually ensue.

Meningitis

Acute bacterial, fungal, and viral meningitis can be associated with a psychiatric presentation with or without abnormal vital signs.

Patients usually present with acute confusion, headaches, memory impairments, and fever with possible neck stiffness.

Parathyroid disorder

Dysfunction of the parathyroid glands results in abnormalities in the regulation of electrolytes, especially calcium. Excessive excretion of parathyroid hormone results in a state of hypercalcemia. Hyperparathyroidism is frequently associated with significant psychiatric symptoms, which are caused by the resultant hypercalcemia and can precede other somatic manifestations of the illness. Patients can experience delirium, sudden dementia, depression, anxiety, psychosis, apathy, stupor, and coma.

Thyroid disorders

Patients with hyperthyroidism can present in various ways but commonly present with symptoms of anxiety, confusion, and agitated depression. Patients can also present with hypomania and frank psychosis. In most patients who present with depression or anxiety associated with hyperthyroidism without other psychiatric history, psychiatric symptoms usually resolve with treatment of the hyperthyroidism.

Similar to patients with hyperthyroidism, those with hypothyroidism often present with depression and anxiety.

Adrenal disorders

Adrenal disorders cause changes in the normal secretion of hormones from the adrenal cortex and may produce significant psychiatric symptoms. Patients with this condition can exhibit symptoms such as apathy, fatigue, depression, and irritability. Psychosis and confusion can also develop.

The existence of moderate-to-severe depression in up to 50% of patients with Cushing syndrome is well documented, with symptoms sometimes severe enough to lead to suicide. Decreased concentration and memory deficits may also be present.

Neuropsychiatric manifestations of patients with lupus have a prevalence of up to 75-90%. Major psychiatric symptoms include depression, emotional lability, delirium, and psychosis. The presence of severe depression or psychosis is associated with anti-P antibodies in the serum, which suggests an autoimmune mechanism for inducing mental symptoms.

Sodium imbalance

This causes irritability, Confusion, Anxiety, Delusions and hallucinations, etc. Without proper treatment, seizures, stupor, and coma ultimately ensue. Treatment consists of correcting the serum sodium level at a slow but adequate rate.

The clinical manifestations of stages of hepatic encephalopathy are listed below

Stage I

- Apathy
- Restlessness
- Impaired cognition
- Impaired handwriting
- Reversal of sleep rhythm

Stage II

- Lethargy
- Drowsiness
- Disorientation
- Asterixis
- Beginning of mood swings
- Beginning of behavioural disinhibition

Stage III

- Arousable stupor
- Hyperactive reflexes
- Short episodes of psychiatric symptoms

Stage IV - Coma (responsive only to pain)

Patients may also experience short episodes of depression, hypomania, anxiety, and obsessive-compulsive symptoms.

Dialysis dementia is a specific syndrome characterised by encephalopathy, dysarthria, dysphasia, poor memory, depression, paranoia, myoclonic jerking, and seizures.

Vitamin B-1 deficiency

Much more commonly today, thiamine deficiency manifests as Wernicke encephalopathy, often, but not exclusively, in individuals with heavy and prolonged alcohol use.

Vitamin B-12 deficiency

Deficiency of vitamin B-12 (cobalamin) is the cause of pernicious anemia. Psychiatric symptoms include depression, fatigue, psychosis, and progressive cognitive impairment can accompany neurologic symptoms.

Alcohol

Although volumes have been written concerning the pathologic changes in patients who use alcohol for short and long periods, a brief review is appropriate because patients in alcohol withdrawal can present with numerous psychiatric symptoms that can be fatal if not identified and treated quickly.

Withdrawal symptoms can emerge, particularly in the absence of a measurable blood alcohol level. Florid delirium tremens (DT) is the most serious and potentially fatal alcohol withdrawal syndrome. The clinical picture includes hallucinations (most commonly auditory and/or visual), gross confusion and disorientation, and autonomic hyperactivity (e.g, tachycardia, fever, sweating, hypertension). These patients are often agitated and paranoid and may not readily allow physical examination. The temptation to view an agitated, paranoid, overtly hallucinating patient as in need of nothing further than admission to a psychiatric unit may be a grave mistake because untreated DT is potentially fatal.

Patients may also present with hallucinations in a clear sensorium (differentiating it from DT), usually in the setting of recent cessation of or significant decrease in the amount of alcohol used. Known as alcoholic hallucinosis, the hallucinations (most frequently auditory) may be relatively brief, usually resolving within approximately 30 days, but they may persist. Recurrences are likely with continued alcohol use.

Cocaine and amphetamines

Cocaine is a powerful stimulant initially causing euphoria and increased alertness and energy. As the high wears off, the user may develop symptoms of anxiety and depression, often with drug craving. With continued regular use, symptoms of psychosis develop with hallucinations and frank paranoid delusions. The psychiatric presentation can appear similar to that observed in patients with chronic amphetamine abuse.

Hallucinogens

A brief mention must be made of lysergic acid diethylamide (LSD), a potent hallucinogen that causes intense and vivid hallucinations in a clear sensorium. LSD-elicited hallucinations are usually of relatively short duration, but flashbacks of varying intensity may occur in a small number of users.

Ecstasy

Depression, anxiety, and psychosis have also been described with regular use, and some of the symptoms persist for months after cessation of use.

Solvents

Long-term and heavy use can lead to hallucinations, cognitive impairment, personality change, and neurologic impairment, particularly cerebellar findings.

Heavy metals

Lead, mercury, manganese, arsenic, organophosphorus compounds, and others can cause psychiatric symptoms. Exposure is usually industrial or environmental and should be considered in the appropriate settings.

Self Assessment Questions

1) Describe seizure disorder in terms of producing psychotic symptoms.

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2) What role brain tumors play in producing psychotic symptoms?

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3) How does multiple sclerosis affect the medical condition and produce psychotic symptoms?

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4) Discuss thyroid disorder and the production of psychotic symptoms.

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5) How does sodium imbalance contribute to psychiatric disorders. Describe the stages?

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6) Which are the vitamin deficiencies cause psychiatric disorders? Explain.

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7) How do amphetamines, solvents and hallucinogens produce psychotic symptoms?

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3.3 SYMPTOMS OF PSYCHOTIC DISORDERS

In a psychotic disorder, perception and understanding of reality is severely impaired. Symptoms may include fixed but untrue beliefs (delusions), seeing visions or hearing voices (hallucinations), confusion, disorganised speech, exaggerated or diminished emotions, or bizarre behaviour. Level of functioning may be severely impaired with social withdrawal and inability to attend to work, relationships, or even basic personal care. Individuals generally have little awareness of the mental abnormalities associated with their illness. It may be impossible to identify a specific psychotic disorder due to insufficient information or contradictory findings. Psychotic symptoms are described as positive or negative.

1) *Positive symptoms*

Positive symptoms are delusions, hallucinations, bizarre behaviours, and thought broadcasting where the individual believes others can supernaturally influence his or her thoughts or vice versa.

2) *Negative symptoms*

Negative symptoms refer to a reduction or loss of normal functions such as restriction and flattening of emotions, severely reduced speech or thought, and lack of interest in goal-directed activities. A delusion is a firm belief that others cannot verify.

The delusional individual clings to the belief despite evidence to the contrary. A common type of delusion involves thoughts of persecution such as being spied upon or conspired against. There may also be delusions of grandeur where individuals believe they have extraordinary powers, are on a special mission, or think they are someone important such as Jesus Christ. The delusion is termed bizarre if it is not based on ordinary life experiences. An example is of aliens controlling an individual's body and / or thoughts.

Hallucinations are sensory perceptions that no one else can detect and can involve the sense of sight, touch, hearing, smell, or taste. Hearing voices is the most frequent hallucination in psychosis. The hallucinations occur when the individual is awake. Disorganised thoughts (loosening of associations) are characterised by jumping from one topic to another. Grossly disorganised behaviour can result in neglect of personal appearance and hygiene, proper nutrition, and other tasks of living.

The individual may dress inappropriately and act unpredictably such as shouting or swearing in public. Usually these disorders involve hallucinations or delusions that are very prominent. Psychosis is a symptom or feature of mental illness typically characterised by radical changes in personality, impaired functioning, and a distorted or non-existent sense of objective reality. Patients suffering from psychosis have impaired reality testing; that is, they are unable to distinguish personal, subjective experience from the reality of the external world. They experience hallucinations and/or delusions that they believe are real, and may behave and communicate in an inappropriate and incoherent fashion.

Psychosis may appear as a symptom of a number of mental disorders, including mood and personality disorders. It is also the defining feature of schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder, and the psychotic disorders (i.e., brief psychotic disorder, shared psychotic disorder, psychotic disorder due to a general medical condition, and substance induced psychotic disorder. Psychosis may be caused by the interaction of biological and psychosocial factors depending on the disorder it presents. Psychosis can also be caused by purely social factors, with no biological component.

3.3.1 Types of Psychotic Disorders

According to the Diagnostic and Statistical Manual of Mental Disorders (2000), text revision (DSM IV TR), there is not an universal acceptance of the term *psychotic,* however the DSM IV TR definition refers to the existence of specific symptoms such as delusions, prominent hallucinations, disorganised speech, disorganised or catatonic behaviour. In layman's terms a psychotic individual could be described as someone who is "insane."

DSM IV TR is a manual that classifies and describes in great detail all mental disorders and is highly used in clinical, educational, and research settings. The manual further describes all of the psychotic disorders in greater detail. Those disorders are: Schizophrenia, Schizophreniform Disorder, Schizoaffective Disorder, Delusional Disorder, Brief Psychotic Disorder, Shared Psychotic Disorder, Psychotic Disorder Due to a General Medical Condition, Substance-Induced Psychotic Disorder, and Psychotic Disorder Not Otherwise Specified.

1) *Schizophrenia*

Schizophrenia is probably the one that most people are familiar with because it is seen most commonly in society and in the clinical setting. Schizophrenia is characterised as being a psychotic disorder that has to last for at least 6 months and include two or more of active phase symptoms (i.e. hallucinations or delusions) for at least 1 month.

2) *Schizophreniforn disorder*

Schizophreniform Disorder is very similar to Schizophrenia except that it lasts from 1 to 6 months and also there 't have to be a decline in functioning.

3) *Schizoaffective disorder*

Schizoaffective Disorder is characterised by an individual having a mood episode and the active phase symptoms of Schizophrenia at the same time. Also there must have been at least 2 weeks of delusions or hallucinations (without mood symptoms) before or after the occurrence of them together.

4) *Delusional disorder*

An individual with Delusional Disorder must have had at least 1 month of non-bizarre symptoms without any other active phase symptoms. Brief Psychotic Disorder must last more than 1 day and goes away by 1 month. An individual with Shared Psychotic Disorder has delusions that have been influenced by someone else who has similar delusions.

A Psychotic Disorder Due to a General Medical Condition is due to direct relation from a physiological condition (i.e. psychosis due to lime disease from a tick bite).

A Substance-Induced Psychotic Disorder are due to a direct physiological condition from medication, drug abuse, or toxin exposure.

Psychotic Disorder Not Otherwise Specified is included in this section to describe all Psychotic Disorders that do not fit into any of the above criteria or when there is not enough information or contradictory information provided. Brief psychotic disorder is a short-term, time-limited disorder. An individual with brief psychotic disorder has experienced at least one of the major symptoms of **psychosis** for less than one month. **Hallucinations**, **delusions**, strange bodily movements or lack of movements (catatonic behaviour), peculiar speech and bizarre or markedly inappropriate behaviour are all classic psychotic symptoms that may occur in brief psychotic disorder.

3.3.2 Causes of Psychotic Disorder

The cause of the symptoms helps to determine whether or not the sufferer is described as having brief psychotic disorder. If the psychotic symptoms appear as a result of a physical disease, a reaction to medication, or intoxication with drugs or alcohol, then the unusual behaviours are not classified as brief psychotic disorder.

If hallucinations, delusions, or other psychotic symptoms occur at the same time that an individual is experiencing major clinical depression or bipolar (manic-depressive) disorder, then the brief psychotic disorder diagnosis is not given. The decision rules that allow the clinician to identify this cluster of symptoms as brief psychotic disorder are outlined in the Diagnostic and Statistical Manual of the Fourth Edition Text Revision, produced by the American Psychiatric Association. This manual is referred to by most mental health professionals as *DSM-IV-TR*.

Psychosis (from the Greek "psyche", for mind/soul, and "-osis", for abnormal condition) means abnormal condition of the mind, and is a generic psychiatric term for a mental state often described as involving a "loss of contact with reality". People suffering from psychosis are described as *psychotic.* Psychosis is given to the more severe forms of psychiatric disorder, during which hallucinations and delusions and impaired insight may occur. Some professionals say that the term psychosis is not sufficient as some illnesses grouped under the term "psychosis" have nothing in common (Gelder, Mayou & Geddes 2005).

People experiencing psychosis may report hallucinations or delusional beliefs, and may exhibit personality changes and thought disorder. Depending on its severity, this may be accompanied by unusual or bizarre behaviour, as well as difficulty with social interaction and impairment in carrying out the daily life activities. A wide variety of central nervous system diseases, from both external poisons and internal physiologic illness, can produce symptoms of psychosis. Trauma and stress can cause a short-term psychosis (less than a month's duration) known as brief psychotic disorder. Major life-changing events such as the death of a family member or a natural disaster have been known to stimulate brief psychotic disorder in patients with no prior history of mental illness.

Psychosis may also be triggered by an organic cause, termed a psychotic disorder due to a general medical condition. Organic sources of psychosis include neurological conditions (for example, epilepsy and cerebrovascular disease), metabolic conditions (for example, porphyria), endocrine conditions (for example, hyper- or hypothyroidism), renal failure, electrolyte imbalance, or autoimmune disorders. Common such underlying medical conditions are: thyroid disease with too much or too little thyroid hormone production; brain tumor; stroke; infection of central nervous system; epilepsy; liver or kidney disease; systemic lupus erythematosus with central nervous system involvement; severe fluid and electrolyte disturbances; metabolic conditions affecting blood sugar or oxygen content of the blood. There are more, but these illustrate the point. For instance, in temporal lobe epilepsy it is common to have the occasional patient develop religious delusions.

Other hallucinations associated with temporal lobe epilepsy are olfactory hallucinations such as smelling burning rubber or other unpleasant smells. In some patients the medical diagnosis is known and the hallucinations develop subsequently. In other patients the hallucinations are the first clue that there may be an underlying medical condition. If the psychotic condition starts at an age atypical for a psychotic disorder and visual or olfactory hallucinations are present, the clinician must think about a medical condition (or hidden drug abuse) that may cause these symptoms.

Self Assessment Questions

1) What are the positive and negative symptoms of psychotic disorders?

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2) Describe hallucinations and delusions.

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3) What are the various types of psychotic disorders?

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4) What are the causes of psychotic disorders? Explain.

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3.4 SYMPTOMS OF PSYCHOTIC DISORDERS DUE TO MEDICAL CONDITION

Psychosis is characterised by the following symptoms:

1) *Delusions*

An unshakable and irrational belief in something untrue. Delusions defy normal reasoning, and remain firm even when overwhelming proof is presented to disprove them.

2) *Hallucinations*

Psychosis causes false or distorted sensory experience that appear to be real. Psychotic patients often see, hear, smell, taste, or feel things that aren't there.

3) *Disorganised speech*

Psychotic patients often speak incoherently, using noises instead of words and "talking" in unintelligible speech patterns.

4) *Disorganised or catatonic behaviour*

Behavior that is completely inappropriate to the situation or environment. Catatonic patients have either a complete lack of or inappropriate excess of motor activity. They can be completely rigid and unable to move (vegetative), or in constant motion. Disorganised behaviour is unpredictable and inappropriate for a situation (e.g., screaming obscenities in the middle of class).

3.4.1 Symptoms

The main symptoms of this disorder are delusions and hallucinations. There has to be medical evidence that the symptoms are a direct physiological consequence of a medical condition. All other mental disorders have to be ruled out before this diagnosis is given. There are many medical conditions that can cause psychotic symptoms. These medical conditions include; epilepsy, multiple sclerosis, central nervous system infections and migraines. There are two subtypes of this disorder. The two subtypes are:

Delusions: The person has delusions. A delusion is a fixed belief that is either false, fanciful, or derived from deception. In psychiatry, it is defined to be a belief that is pathological (the result of an illness or illness process) and is held despite evidence to the contrary. As a pathology, it is distinct from a belief based on false or incomplete information, dogma, stupidity, poor memory, illusion, or other effects of perception.

Delusions typically occur in the context of neurological or mental illness, although they are not tied to any particular disease and have been found to occur in the context of many pathological states (both physical and mental). However, they are of particular diagnostic importance in psychotic disorders.

3.4.2 Types of Delusions

Delusions are categorised into different groups:

1) *Bizarre delusion*: A delusion that is very strange and completely implausible; an example of a bizarre delusion would be that aliens have removed the affected person's brain.

2) *Non-bizarre delusion*: A delusion that, though false, is at least possible, e.g., the affected person mistakenly believes that he is under constant police surveillance.

3) *Mood-congruent delusion*: Any delusion with content consistent with either a depressive or manic state, e.g., a depressed person believes that news anchors on television highly disapprove of him, or a person in a manic state might believe he is a powerful deity.

4) *Mood-neutral delusion*: A delusion that does not relate to the sufferer's emotional state; for example, a belief that an extra limb is growing out of the back of one's head is neutral to either depression or mania.

5) *Delusion of control*: This is a false belief that another person, group of people, or external force controls one's thoughts, feelings, impulses, or behaviour.

6) *Nihilistic delusion:* A person with this type of delusion may have the false belief that the world is ending.

7) *Delusional jealousy (or delusion of infidelity):* A person with this delusion falsely believes a spouse or lover is having an affair.

8) *Delusion of guilt or sin (or delusion of self-accusation)*: This is a false feeling of remorse or guilt of delusional intensity.

9) *Delusion of mind being read:* The false belief that other people can know one's thoughts.

10) *Delusion of reference*: The person falsely believes that insignificant remarks, events, or objects in one's environment have personal meaning or significance.

11) *Erotomania*: A delusion where someone believes another person is in love with them.

12) *Grandiose delusion*: An individual is convinced he has special powers, talents, or abilities. Sometimes, the individual may actually believe he or she is a famous person or character (for example, a rock star).

13) *Persecutory delusion:* These are the most common type of delusions and involve the theme of being followed, harassed, cheated, poisoned or drugged, conspired against, spied on, attacked, or obstructed in the pursuit of goals.

14) *Religious delusion:* Any delusion with a religious or spiritual content. These may be combined with other delusions, such as grandiose delusions (the belief that the affected person is a god, or chosen to act as a god, for example).

15) *Somatic delusion:* A delusion whose content pertains to bodily functioning, bodily sensations, or physical appearance. Usually the false belief is that the body is somehow diseased, abnormal, or changed—for example, infested with parasites.

16) *Delusions of parasitosis (DOP) or delusional parasitosis:* a delusion in which one feels infested with an insect, bacteria, mite, spiders, lice, fleas, worms, or other organisms. Affected individuals may also report being repeatedly bitten. In some cases, entomologists are asked to investigate cases of mysterious bites. Sometimes physical manifestations may occur including skin lesions.

17) *Delusions of poverty*: The person strongly believes that he is financially incapacitated. Although this type of delusion is less common now, it is however interesting to note that it was particularly widespread in the days before state support

3.4.3 Hallucinations

The person has Hallucinations. Hallucinations can occur in any sensory modality (i.e., visual, olfactory, gustatory, tactile, or auditory), but certain etiological factors are likely to evoke specific hallucinatory phenomena. Olfactory hallucinations, especially those involving the smell of burning rubber or other unpleasant smells, are highly suggestive of temporal lobe epilepsy. Hallucinations may vary from simple and unformed to highly complex and organised, depending on etiological factors, environmental surroundings, nature and focus of the insult rendered to the central nervous system, and the reactive response to impairment The latter definition distinguishes hallucinations from the related phenomena of dreaming, which does not involve wakefulness; illusion, which involves distorted or misinterpreted real perception; imagery, which does not mimic real perception and is under voluntary control; and pseudohallucination, which does not mimic real perception, but is not under voluntary control.[1] Hallucinations also differ from "delusional perceptions", in which a correctly sensed and interpreted genuine perception is given some additional (and typically bizarre) significance.

Hallucinations can occur in any sensory modality — visual, auditory, olfactory, gustatory, tactile, proprioceptive, equilibrioceptive, nociceptive, thermoceptive and chronoceptive.

Self Assessment Questions

1) What are the various symptoms of pschotic disorders due to medical conditions?

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2) Describe the symptoms of this disorder.

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3) What are the various types of delusions?

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4) Define hallucinations.

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5) What are the various types of hallucinations?

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3.5 CAUSES PSYCHOTIC DISORDERS DUE TO MEDICAL CONDITIONS

Psychosis may be caused by a number of biological and social factors, depending on the disorder underlying the symptom. Trauma and stress can induce a short-term psychosis known as brief psychotic disorder. This psychotic episode, which lasts a month or less, can be brought on by the stress of major life-changing events (e.g., death of a close friend or family member, natural disaster, traumatic event), and can occur in patients with no prior history of mental illness.

Psychosis can also occur as a result of an organic medical condition (known as psychotic disorder due to a general medical condition). Neurological conditions (e.g., epilepsy, migraines, Parkinson's disease, cerebrovascular disease, dementia), metabolic imbalances (hypoglycemia), endocrine disorders (hyper- and hypothyroidism), renal disease, electrolyte imbalance, and autoimmune disorders may all trigger psychotic episodes.

Hallucinogenics, PCP, amphetamines, cocaine, marijuana, and alcohol may cause a psychotic reaction during use, abuse, or withdrawal. Certain prescription medications such as anesthetics, anticonvulsants, chemotherapeutic agents, and antiparkinsonian medications may also induce psychotic symptoms as a side-effect. In addition, toxic substances like carbon dioxide and carbon monoxide, which may be deliberately or accidentally ingested, have been reported to cause substance-induced psychotic disorder.

3.5.1 Functional Causes

Functional causes of psychosis include the following:

- brain tumors
- drug abuse amphetamines, cocaine, marijuana, alcohol among others
- brain damage
- schizophrenia, schizophreniform disorder, schizoaffective disorder, brief psychotic disorder
- bipolar disorder (manic depression)
- severe clinical depression
- severe psychosocial stress
- sleep deprivation
- some focal epileptic disorders especially if the temporal lobe is affected
- exposure to some traumatic event (violent death, etc.)
- abrupt or over-rapid withdrawal from certain recreational or prescribed drugs.

A psychotic episode can be significantly affected by mood. For example, people experiencing a psychotic episode in the context of depression may experience persecutory or self-blaming delusions or hallucinations, while people experiencing a psychotic episode in the context of mania may form grandiose delusions.

Stress is known to contribute to and trigger psychotic states. A history of psychologically traumatic events, and the recent experience of a stressful event, can both contribute to the development of psychosis. Short-lived psychosis triggered by stress is known as brief reactive psychosis, and patients may spontaneously recover normal functioning within two weeks.

In some rare cases, individuals may remain in a state of full-blown psychosis for many years, or perhaps have attenuated psychotic symptoms (such as low intensity hallucinations) present at most times.

3.5.2 General Medical Conditions

Psychosis arising from "organic" (non-psychological) conditions is sometimes known as secondary psychosis. It can be associated with the following pathologies:

- neurological disorders, including:
- brain tumour
- dementia with Lewy bodies
- multiple sclerosis
- sarcoidosis
- Lyme Disease
- syphilis
- Alzheimer's Disease
- Parkinson's Disease.

3.5.3 Psychoactive Drugs

Various psychoactive substances (both legal and illegal) have been implicated in causing, exacerbating, and/or precipitating psychotic states and/or disorders in users. On the other hand, cannabis use has increased dramatically over the past few decades but declined in the last decade, whereas the rate of psychosis has not increased.

An early phase of schizophrenia.

Because of the similarities between brief psychotic disorder, **schizophreniform disorder** and **schizophrenia**, many clinicians have come to think of brief psychotic disorder as being the precursor to a lengthier psychotic disorder. Although this can only be identified retrospectively, brief psychotic disorder is often the diagnosis that was originally used when an individual (who later develops schizophrenia) experiences a first "psychotic break" from more typical functioning.

3.5.4 A Stress Response

At times, under severe **stress**, temporary psychotic reactions may appear. The source of stress can be from typical events encountered by many people in the course of a lifetime, such as being widowed or divorced. The severe stress may be more unusual, such as being in combat, enduring a natural disaster, or being taken hostage. The person generally returns to a normal method of functioning when the stress decreases or more support is available, or better coping skills are learned.

3.5.5 Postpartum Psychosis

In some susceptible women, dramatic hormonal changes in childbirth and shortly afterward can result in a form of brief psychotic disorder often referred to as *postpartum psychosis*. Unfortunately, postpartum conditions are often misidentified and improperly treated. In many cases of a mother killing her infant or committing **suicide** , postpartum psychosis is involved.

Self Assessment Questions

1) What are the causes of psychosis in generalmedical conditions?

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2) What are psychoactive drugs? How are they involved in producing psychotic symptoms?

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3) Descrfibe a stress response in the context psychotic symptoms.

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3.6 DEFENSE MECHANISM IN PERSONALITY DISORDER

Persons with **personality disorders** appear to be more susceptible to developing brief psychotic reactions in response to stress. Individuals with personality disorders have not developed effective adult mechanisms for coping with life. When life becomes more demanding and difficult than can be tolerated, the person may lapse into a brief psychotic state.

3.6.1 Culturally Defined Disorder

Culture is a very important factor in understanding mental health and psychological disturbance, and brief psychotic disorder is an excellent example. The types of behaviour that occur during brief psychotic disorder are very much shaped by the expectations and traditions of the individual's culture. Many cultures have some form of mental disorder that would meet criteria for brief psychotic disorder the features of which are unique to that culture, wherein most sufferers have similar behaviours that are attributed to causes that are localised to that community. The *DSMIV-TR* calls disorders unique to certain societies or groups "culture-bound."

An example of a culture-bound syndrome is *koro*, a syndrome observed in Japan and some other areas of Asia but not elsewhere. Koro is an **obsession** to the point of delusion with the possibility that the genitals will retract or shrink into the body and cause death.

Conversely, while culture shapes the form a psychotic reaction may take, culture also determines what is *not* to be considered psychotic. Behaviours that in one culture would be thought of as bizarre or psychotic, may be acceptable in another. For example, some cultural groups and religions view "speaking in tongues" as a valuable expression of the gifts of God, whereas viewed out of context, the unrecognisable speech patterns might be viewed as psychotic. If the behaviours shown are culturally acceptable in the person's society or religion, and happen in an approved setting such as a religious service, then brief psychotic disorder would not be diagnosed.

3.7 TREATMENT

The treatment of psychosis depends on the cause or diagnosis or diagnoses (such as schizophrenia, bipolar disorder and/ or substance intoxication). The first line treatment for many psychotic disorders is antipsychotic medication (oral or intramuscular injection), and sometimes hospitalisation is needed. There is growing evidence that cognitive behaviour therapy and family therapy can be effective in managing psychotic symptoms.

3.7.1 Early Intervention

Early intervention in psychosis is a relatively new concept based on the observation that identifying and treating someone in the early stages of a psychosis can significantly improve their longer term outcome. This approach advocates the use of an intensive multi-disciplinary approach during what is known as the critical period, where intervention is the most effective, and prevents the long term morbidity associated with chronic psychotic illness.

Newer research into the effectiveness of cognitive behavioural therapy during the early pre-cursory stages of psychosis (also known as the "prodrome" or "at risk mental state") suggests that such input can prevent or delay the onset of psychosis.

3.7.2 Hospitalisation

Hospitalisation is preferred when dealing with patients who exhibit severe symptoms of Schizophrenia. The aim of hospitalisation is to prevent them from hurting or injuring themselves and gain stability as they take medication.

Psychiatric hospitalisation may be needed to observe individuals and protect them from their own loss of reality, judgment, and impulse control. Antipsychotic medication may be given along with any appropriate psychotherapy. In certain situations, group therapy may be effective. Electroconvulsive therapy (ECT) is not as effective. Fifty to sixty percent of cases get better with ECT if the patient has a psychotic disorder (Ghaziuddin 119). With continued observation, it may be possible to reach a more specific diagnosis and initiate appropriate treatment. Psychosis caused by schizophrenia or another mental illness should be treated by a psychiatrist and/or psychologist. Other medical and mental health professionals may be part of the treatment team, depending on the severity of the psychosis and the needs of the patient. Medication and/or psychosocial therapy is typically employed to treat the underlying disorder.

3.7.3 Medications

Antipsychotic medications commonly prescribed to treat psychosis include risperidone (Risperdal), thioridazine (Mellaril), halperidol (Haldol), chlorpromazine (Thorazine), clozapine (Clozaril), loxapine (Loxitane), molindone hydrochloride (Moban), thiothixene (Navane), and olanzapine (Zyprexa). Possible common side-effects of antipsychotics include dry mouth, drowsiness, muscle stiffness, and hypotension. More serious side effects include tardive dyskinesia (involuntary movements of the body) and neuroleptic malignant syndrome (NMS), a potentially fatal condition characterised by muscle rigidity, altered mental status, and irregular pulse and blood pressure.

Once an acute psychotic episode has subsided, psychosocial therapy and living and vocational skills training may be recommended. Drug maintenance treatment is usually prescribed to prevent further episodes.

Antipsychotics are the primary medications for treating schizophrenia. This medicine

reduces disturbing symptoms like hallucinations and delusion. Some of the common medicines include Prolixin, Navane, Trilafon, Clozaril, Geodon and Zyprexa.

3.7.4 Psychosocial Therapy

Psychosocial therapy is considered the most effective in dealing with social, psychological and behavioural problems resulting from schizophrenia. Therapy includes rehabilitation which helps an individual to focus on skills and training to help an individual to be independent. Family therapy enables a person to interact and effectively deal with the family members.

3.8 LET US SUM UP

Thus it can be said that psychosis caused by a medical condition may be a single isolated incident or may be recurrent, cycling with the status of the underlying medical condition. Although treating the medical condition often results in the remission of the psychosis. The symptoms of psychosis sometimes persists long after the medical conditions and caused psychosis. Prominent hallucinations and delusions are the main cause for such psychotic development. Individuals with brief psychotic disorder experience delusions, hallucinations, and/or disorganised speech and behaviour that lasts for at least one day. However, these symptoms remit within one month, and their behaviour returns to normal. If the observed psychotic symptoms can be reasonably thought to have been due to a pre-existing mental illness diagnosis .

About 1% of the world's population has psychotic disorders. Symptoms for most psychotic disorders often first appear when an individual is in their late teens to 30's. Psychotic disorders affect men and women equally. Men more commonly develop symptoms of schizophrenia between 18 to 25 years old, while women tend to develop symptoms of schizophrenia between 25 years old to the mid 30's. Late onset (after 40 years old) is more common in women then in men. In psychosis persons with some preexisting vulnerability experience some stress and symptoms emerge as a result. Psychotic symptoms disrupt the lives and this need to be handle with the interventions like therapy,medications and early identification of the disorder.

3.9 UNIT END QUESTIONS

1) What are the symptoms of psychotic disorders due to general medical conditions?

2) What are the causes of psychotic disorders due to medical conditions?

3) What is meant by defense mechanisms in psychotic disorders?

4) What do we understand by culturally defined disorders?

5) Describe the early intervention as part of treatment of these disorders.

6) When are these patients hospitalised and what are the main reasons for the same?

7) Discuss the psychosocial therapy for psychotic disorders due to general medical condition.

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