

SCHIZOPHRENIA



Introduction

- Schizophrenia is a chronic, severe, disabling & challenging brain disorder that makes it difficult to distinguish between what is real and unreal, think clearly, manage emotions, relate to others, and function normally.
- Schizophrenia is a brain disorder that affects the way a person acts, thinks, and sees the world. People with schizophrenia have an altered perception of reality, often a significant loss of contact with reality.
- Sometimes people with schizophrenia seem perfectly fine until they talk about what they are really thinking.

Prevalence :

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- - Affects men and women equally.
- - It occurs at similar rates in all ethnic groups around the world.
- - Men tend to experience symptoms a little earlier than women. Most of the time, people do not get schizophrenia after age 45.
- - Schizophrenia rarely occurs in children.
- - Most cases of schizophrenia appear in the late teens or early adulthood. However, schizophrenia can appear for the first time in middle age or even later.
- - Schizophrenia also tends to be more severe in men than in women.

Etiology

1. Genetic causes of Schizophrenia-

- Individuals with a first-degree relative (parent or sibling) who has schizophrenia have a 10 percent chance of developing the disorder, as opposed to the 1 percent chance of the general population.
- But schizophrenia is only influenced by genetics, not determined by it.

Etiology

2.Environmental causes of Schizophrenia o Inherited genes make a person vulnerable to schizophrenia and then environmental factors act on this vulnerability to trigger the disorder.

- High levels of stress are believed to trigger schizophrenia by increasing the body's production of the hormone cortisol.
- Other Factors – Prenatal exposure to a viral infection
- ◆ Low oxygen levels during birth (from prolonged labor or premature birth)
- ◆ Exposure to a virus during infancy
- ◆ Early parental loss or separation
- ◆ Physical or sexual abuse in childhood

Etiology

- 3. Abnormal Brain Structure & Chemistry o Enlarged brain ventricles are seen in some schizophrenics, indicating a deficit in the volume of brain tissue.
- Abnormally low activity in the frontal lobe, the area of the brain responsible for planning, reasoning, and decision-making.
- Abnormalities in the temporal lobes, hippocampus, and amygdala are connected to schizophrenia's positive symptoms

Signs and Symptoms

- • 3 broad categories of symptoms of schizophrenia:
 - Positive symptoms , Negative symptoms , Cognitive symptoms
- • Signs and symptoms of schizophrenia vary dramatically from person to person, both in pattern and severity.
- • Not every person with schizophrenia will have all symptoms, and the symptoms of schizophrenia may also change over time.

- Positive Symptoms:
 - People with positive symptoms often "lose touch" with reality. These symptoms can come & go.
 - Hallucinations - "Voices" are the most common type of hallucination in schizophrenia.
- Visual hallucinations are rare.
- • Delusions are false beliefs that are not part of the person's culture and do not change.
- They may have paranoid delusions and believe that others are trying to harm them, such as by cheating, harassing, poisoning, spying on, or plotting against them or the people they care about. These beliefs are called "delusions of persecution."
- • Thought disorders are unusual or dysfunctional ways of thinking. One form of thought disorder is called "disorganized thinking". Another form is called "thought blocking".
- • Movement disorders may appear as agitated body movements.
- A person with a movement disorder may repeat certain motions over and over. In the other extreme, a person may become catatonic.

- Negative Symptoms
- • Negative symptoms are associated with disruptions to normal emotions and behaviours.
- • These symptoms include the following:
 - "Flat affect" (a person's face does not move or he or she talks in a dull or monotonous voice).
 - Lack of pleasure in everyday life. o Lack of ability to begin and sustain planned activities.
 - Speaking little, even when forced to interact.
- • People with negative symptoms need help with everyday tasks.
- They often neglect basic personal hygiene.
- This may make them seem lazy or unwilling to help themselves.

- Cognitive Symptoms

- Cognitive symptoms are subtle. Like negative symptoms, cognitive symptoms may be difficult to recognize as part of the disorder.
- Cognitive symptoms include the following:
 - Poor "executive functioning" (the ability to understand information and use it to make decisions)
 - Trouble focusing or paying attention
 - Problems with "working memory" (the ability to use information immediately after learning it).
 - they can cause great emotional distress.

Pathogenesis

- Schizophrenia has been associated with the dysregulation of many neurotransmitter systems.
- Dopamine Theory - Dopamine D2 binding sites are increased in schizophrenic brains, whilst there are prefrontal D1 deficits, which contributes to cognitive impairment.
- In addition to dopamine, serotonin, glutamate, GABA and acetylcholine dysregulation have also been implicated in the pathogenesis of schizophrenia.

- CNS Changes in Schizophrenia
- • At the gross level, **overall brain volume and grey matter volume is reduced** in schizophrenic brains and ventricular volume (particularly the third and fourth ventricles) is increased.
- • These **changes in brain structure** are seen early after, and sometimes prior to, onset of symptoms and can be progressive.
- **White matter volume is also decreased** in brains of schizophrenic patients and is consistent with the cognitive deficits seen in this disease.
- • **Overactivity of the hypothalamic-pituitary-adrenal (HPA) axis** is prevalent in schizophrenics and this has been linked to an increase in the severity of the above structural changes.
- • Schizophrenia arises from **minor abnormalities in neurodevelopment**, such as disordered cortical neuron migration

Types of Schizophrenia

- Paranoid – Preoccupation with 1 or more delusions or frequent auditory hallucinations; cognitive function & affect remain mainly preserved.
- •Disorganised – Characterized by disorganized behaviour & speech.
- • Catatonic – Has atleast 2 of the following features: immobility , excessive or purposeless motor activity , extreme negativism, peculiarities of voluntary movement.
- • Undifferentiated – Doesn't have any of the characteristics of paranoid , disorganised or catatonic schizophrenia.
- • Residual – A continued presence of negative symptoms. More commonly known as Pronounced symptoms.

- Diagnosis A diagnosis of schizophrenia is made based on a full psychiatric evaluation, medical history, physical exam, and lab tests.
- • Psychiatric evaluation – The doctor or psychiatrist will ask a series of questions about individual or his/her loved one's symptoms, mental status examination, psychiatric history, and family history of mental health problems.
- • Medical history and exam – Doctor will ask about his/her personal and family health history.
- He or she will also perform a complete physical examination to check for medical issues that could be causing or contributing to the problem.
- • Laboratory tests – While there are no laboratory tests that can diagnose schizophrenia, simple blood and urine tests can rule out other medical causes of symptoms.
- The doctor may also order brain- imaging studies, such as an MRI or a CT scan, in order to look for brain abnormalities associated with schizophrenia.

Diagnosis •

- Mental Health Professionals use the following criteria to diagnose Schizophrenia:
- • The presence of two or more of the following symptoms for at least 30 days:
 - Hallucinations
 - Delusions
 - Disorganized speech
 - Disorganized or catatonic behavior
 - Negative symptoms (emotional flatness, apathy, lack of speech)
- • Significant problems functioning at work or school, relating to other people, and taking care of oneself.
- • Continuous signs of schizophrenia for at least 6 months, with active symptoms (hallucinations, delusions, etc.) for at least 1 month.
- • No other mental health disorder, medical issue, or substance abuse problem is causing the symptoms.

Medical management

- Antipsychotic medications are the first-line treatment for many patients with schizophrenia. Medications are often used in combination with other types of drugs to decrease or control the symptoms associated with schizophrenia. Some antipsychotic medications include:
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 - olanzapine (Zyprexa)
 - risperidone (Risperdal)
 - quetiapine (Seroquel)
 - ziprasidone (Geodon)
 - aripiprazole (Abilify)
 - paliperidone (Invega)

- Family psycho-education: It is important to include psychosocial interventions in the treatment of schizophrenia.
- Including family members to support patients decreases the relapse rate of psychotic episodes and improves the person's outcomes.
- Family relationships are improved when everyone knows how to support their loved one dealing with schizophrenia

- Assertive community treatment (ACT):
- Another form of psychosocial intervention includes use of out-patient support groups.
- Support teams including psychiatrists, nurses, case managers, and other counselors, meet regularly with the schizophrenic patient to help reduce the need for hospitalization or a decline in their mental status.

- Social skills training: Patients with schizophrenia may need to re-learn how to appropriately interact in social situations.
- This kind of psychosocial intervention involves rehearsing or role-playing real-life situations so the person is prepared when they occur.
- This type of training can reduce drug use, and improve relationships

- Cognitive behavioral therapy (CBT):
- This type of intervention can help patients with schizophrenia change disruptive or destructive thought patterns, and enable them to function more optimally.
- It can help patients "test" the reality of their thoughts to identify hallucinations or "voices" and ignore them.
- This type of therapy may not work in actively psychotic patients, but it can help others who may have residual symptoms that medication does not alleviate.

prognosis

- The prognosis for people with schizophrenia can vary depending on the amount of support and treatment the patients receives.
- Many people with schizophrenia are able to function well and lead normal lives.
- However, people with schizophrenia have a higher death rate and higher incidence of substance abuse.
- When medications are taken regularly and the family is supportive, patients can have better outcomes.

Assignment

- Nursing interventions for patient with schizophrenia