ATI Real Life Student Packet
N201 Nursing Care of Special Populations
2024

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ATI Scenario: Schizophrenia

To Be Completed Before the Simulation

*****Blue boxes should be completed using textbook information. What do you expect to find? This information should be collected before you start the ATI simulation*

Medical Diagnosis: Schizophrenia

NCLEX IV *(8)*: Physiological Integrity/Physiological Adaptation

Anatomy and Physiology
Normal Structures

The brain consists of three central components: **the cerebrum** (composed of the right and left hemispheres and is divided into four lobes: frontal, temporal, parietal, and occipital)**, brainstem** (includes the midbrain, pons, and medulla)**, and cerebellum** (coordinates voluntary movement and maintains trunk stability and equilibrium)**.** The **frontal lobe** controls higher cognitive function, memory, voluntary motor and eye movements, and speech. The **temporal lobe** processes sensory information. The **parietal lobe** interprets special information and contains the sensory cortex. The **occipital lobe** is responsible for visual processing. ***The limbic system** influences emotional behavior and basic drives, such as feeding and sexual behavior. **The brainstem** is responsible for respiratory, vasomotor, and heart functions along with reticular formation. **The cerebellum** is responsible for voluntary movement and maintenance of trunk stability.

Neurotransmitters refer to chemicals that affect the transmission of impulses across the synaptic cleft. **Excitatory neurotransmitters** include epinephrine, norepinephrine, and glutamate. These activate postsynaptic receptors that increase the chance that action potential will be generated. **Inhibitory neurotransmitters** include serotonin, y-aminobutyric acid (GABA), and dopamine. These activate postsynaptic receptors to decrease the chance that an action potential will be generated.

Synaptic transmission refers to the transmission of a neurotransmitter over the structural and functional **synapse** between two neurons. The **synaptic transmission** is made up of the presynaptic terminal, synaptic cleft, and receptor site on the postsynaptic cell.

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

Typically diagnosed in late adolescence or early adulthood, schizophrenia is a primary psychotic disorder. Occurs in 1% of the population with no differing rates in those of different genders, races, environments, or cultures. Men are more likely to have an early onset diagnosis, whereas women are more likely to have a later onset diagnosis. An **early-onset** diagnosis of schizophrenia is linked to greater abnormalities in brain structures, more prominent negative symptoms, and a poorer prognosis. A **later onset** is linked to greater long-term outcomes.

Substance abuse including **alcohol** and **tobacco** is highly prevalent in those with schizophrenia. The diagnosis of schizophrenia also places individuals at a greater risk of depression, suicide, anxiety, OCD, and other nonpsychiatric illnesses.

Schizophrenia can be broken into four phases, including the **prodromal phase** (signs and symptoms that precede the acute phase; social withdrawal, depressing mood, deterioration in functioning, and magical thinking), the **acute phase** (include positive, negative, and cognitive symptoms), the **stabilization phase** (when the acute symptoms, specifically positive symptoms, decrease in severity), and the **maintenance phase** (symptoms are in remission).

The revised dopamine hypothesis is a theory used to explain the biochemical pathophysiology behind schizophrenia. The theory proposes hyperactive dopamine transmission in the mesolimbic areas and hypoactive dopamine transmission in the prefrontal cortex in patients with schizophrenia.

Studies suggest that there is a strong genetic component to the development of schizophrenia. In addition, research has focused on the **c-4 gene** that has been connected to **synaptic pruning**, which refers to the trimming of weak connections between neurons. This process occurs naturally during the early adolescent years of development.

Schizophrenia has also been linked to **decreased volume in both gray and white matter** of the brain.

The **neurodevelopmental vulnerability model** has also been proposed to understand the etiology of schizophrenia. This model focuses on the idea that neurogenesis is altered in schizophrenia through both genetic and non-genetic factors.

To Be Completed Before the Simulation

Anticipated Patient Problem: **Disturbed Sensory Perception**

Goal 1: The patient will recognize distortions of reality during my time of care.

Goal 2: The patient will demonstrate ability to perceive the environment correctly during my time of care.

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Assess the patient's body language for frequent blinking of the eyes, grimacing, turning, or tilting of the head, or verbal responses to unseen others PRN during every patient interaction.	Distract the client from auditory hallucinations by playing music or taking a walk with them PRN for auditory hallucinations during my time of care.
Assess the patient for command hallucinations PRN for recognition of auditory hallucinations.	Explain to the patient, "I don't hear any sounds or voices, but I understand this must be scary for you", PRN for auditory hallucinations that are not commanding.
Assess the patient for scratching, swatting, or picking of the skin PRN throughout my time of care.	Closely monitor the patient by establishing a one-to-one sitter or by moving them closer to the nurse's station PRN during my time of care.
Assess the patient's level of anxiety, including any increase from baseline, at the beginning of my time of care and PRN.	Address the client by their name, speaking in a simple and loud voice, throughout my time of care.
Assess the client's understanding of hallucinations and illusions at the beginning of my time of care and PRN during my time of care.	Educate the client on the positive symptoms of schizophrenia and ways to reorient them to their surroundings PRN during my time of care.
Assess the client's understanding and perception of their environment at the beginning of my time of care and PRN.	Clarify misinterpretations of the patient's environment PRN for delusions.

To Be Completed Before the Simulation

Anticipated Patient Problem: **Impaired Social Interaction**

Goal 1: The patient will engage in a coherent conversation while maintaining intermittent eye contact with me during my time of care.

Goal 2: The patient will recognize and verbalize feelings of anxiety and agitation during my time of care.

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Assess whether medication has reached therapeutic levels at the beginning of my time of care and PRN for new lab results.	Administer antipsychotic medication therapy as ordered by the provider.
Assess the patient's verbal communication skills, including positive verbal symptoms of schizophrenia, throughout my time of care PRN for each patient interaction.	Tell the patient that you are having difficulty understanding them and look for recurring topics and themes PRN for associate looseness.
Assess the patient's nonverbal communication skills, including eye contact and body language, throughout my time of care PRN for each patient interaction.	Provide opportunities for the patient to learn adaptive social skills such as good eye contact, personal space maintenance, and using a moderate voice tone while speaking PRN during my time of care.
Assess the patient's perception of their environment, including any signs of paranoid or persecutory thinking at the beginning of my time of care and PRN.	Approach the patient in a non-threatening demeanor, avoiding speaking in a hushed voice or touching the patient, PRN during my time of care.
Assess the patient's environment at the beginning of my time of care and PRN during each patient interaction.	Provide a low stimuli environment for the patient, including limiting loud noises and bright lighting, PRN during my time of care.
Identify the role that anxiety plays in precipitating paranoia, agitation, and aggressiveness at the beginning of my time of care and PRN.	Teach the patient to find a quiet space when feeling agitated and work on anxiety-relief exercises including deep breathing and thought stopping PRN during my time of care.

To Be Completed During the Simulation:

Actual Patient Problem #1: **Impaired Social Interaction**
Goal: The patient will engage in a coherent conversation while maintaining intermittent eye contact with me during my time of care Met: ☐ Unmet: **X**
Goal: The patient will recognize and verbalize feelings of anxiety and agitation during my time of care.
Met: **X** Unmet:☐

Actual Patient Problem #2: **Disturbed Sensory Perception**
Goal: The patient will recognize distortions of reality during my time of care. Met: **X** Unmet:☐
Goal: The patient will demonstrate ability to perceive the environment correctly during my time of care
Met: **X** Unmet:☐

Additional Patient Problems:
#3 Risk for Other-Directed Violence
#4 Risk for Self-Directed Violence
#5 Imbalanced Nutrition: less than body requirements
#6

Below will be your notes, add more lines as needed. **Relevant Assessments:** Indicate pertinent assessment findings. **Multidisciplinary Team Intervention:** What interventions were done in response to your abnormal assessments? **Reassessment/Evaluation:** What was your patient's response to the intervention?

Patient Problem (#)	Time	Relevant Assessments	Time	Multidisciplinary Team Intervention	Time	Reassessment/ Evaluation
3	1st Visit 1402	Clenching and rubbing repetitive movements of the hands. Lack of eye contact. Increased agitated behavior.	1st Visit 1403	Sat to the side an arm's length away, not directly in front. Avoided prolonged direct eye contact. Spoke clearly and slowly.	1st Visit 1440	Did not become violent or display aggressive behaviors with staff or self.
1 + 2 + 5	1st Visit 1404	Recent diagnosis of schizophrenia after hospitalization. Associative looseness when speaking to sister and nurse. Weighs 190 pounds. 20-pound weight loss in 6 months. Sister states, "he hasn't been eating very much."	1st Visit 1405 1425	With sister at the bedside, educated on the manifestations of schizophrenia. Administered 234 mg of paliperidone IM. Educated on peak effectiveness in 13 days and adverse effects to report. Educated to come back in one week.	2nd Visit 1000	Returned one week later. Speech is clear and coherent. Made intermittent eye contact with staff while speaking. AIMS score of 0. States continuation of hearing voices. No command hallucinations, no worsening of symptoms.
3	1st Visit 1410	Reports not taking medication as of recently, stating "the pharmacist is trying to poison me". Delusion of persecution.	1st Visit 1411	Discussed with the provider on alternative medications.	1st Visit 1420	A Monthly IM injection of paliperidone was prescribed.
1 + 2	1st Visit 1415	"Sometimes I hear voices or music." States only hearing mumbling, no commands. Sister reports them having trouble swallowing their lunch	1st Visit 1416	Educated to notify provider or family members if the voices begin to give commands. Assured that trouble swallowing and dizziness are common	1st Visit 1418	"Sometimes I listen to music to help block the voices and calm me down."

		and having episodes of dizziness.		manifestations of schizophrenia.		
4	1st Visit 1420	Denies suicidal ideation, plans, or attempts. Low risk level for suicide.	1st Visit 1422	Provided information on emergency and crisis resources.	1st Visit 1423	"Thank you, I will take these." Sister at bedside reports that they will seek help if necessary.
1	1st Visit 1430	Sister reveals withdrawal from social events, classes, and work. Sister expresses concern about social life.	1st Visit 1440	Provided information and referrals to local group therapy centers. Educated on the benefits of group therapy in decreasing social isolation and the relapse of schizophrenia manifestations.	1st Visit 1442	Sister states, "Thank you, we will look into attending one of these groups."
1	1st Visit 1445	Denies use of cocaine. Urine toxicology report positive for marijuana. States using marijuana to relax.	2nd Visit 1015	Educated on the effects marijuana use has on schizophrenia manifestations. Offered alternative relaxation techniques.	2nd Visit 1016	"Ok, I will find other ways to relieve my anxiety."

To Be Completed After the Simulation

The orange boxes should be filled out with your simulation patient's actual results, assessments, medications, and recommendations

NCLEX IV *(7)*: Reduction of Risk

Actual Labs/ Diagnostics

AIMs scale (0)
SAFE-T score (low risk)
Urine toxicology (positive for marijuana)

NCLEX II *(3)*: Health Promotion and Maintenance

Signs and Symptoms

Positive: Persecutory and paranoid delusions, loose association, auditory hallucinations (turning/tilting of head, grimacing of face, muttering)
Negative: Avolition, apathy, alogia, blunted affect, impaired social interaction, weight loss

(Although the patient did not experience the following symptoms, these are common to see: tactile/gustatory/visual/olfactory hallucinations, other forms of delusions, word salad, clang association, word poverty, tangentiality, and a waxy posture)

NCLEX II *(3)*: Health Promotion and Maintenance

Contributing Risk Factors

ACE score of 1
Male gender (diagnosis at younger age)
History of cocaine use and cigarette smoking
Current use of marijuana

(This client did not have a family hx of schizophrenia, but this is a common risk factor.)

NCLEX IV *(7)*: Reduction of Risk

Therapeutic Procedures

Non-surgical

Weekly/monthly medication admin via IM injection

Surgical

n/a

Prevention of Complications

(Any complications associated with the client's disease process? If not what are some complications you anticipate)

Exacerbation of symptoms due to drug use
Relapse of symptoms

(This client was not at risk of suicide, but it is extremely common for those with schizophrenia to attempt suicide at least once in their lifetime.)

NCLEX IV *(6)*: Pharmacological and Parenteral Therapies

Medication Management

Risperidone PO
Paliperidone IM

NCLEX IV *(5)*: Basic Care and Comfort

Non-Pharmacologic Care Measures

Group Therapy
Speaking slowly and clearly
Avoiding touching and prolonged eye contact
Providing a low stimuli environment

NCLEX III *(4)*: Psychosocial/Holistic Care Needs

Stressors the client experienced?

Agitation
Anxiety
Withdrawal from daily activities

Client/Family Education

Document 3 teaching topics specific for this client.

- Positive and negative manifestations of schizophrenia.
- Negative effects of substance abuse on the symptoms of schizophrenia.
- Benefits of group therapy on improving communication skills, social interaction, and preventing the relapse of schizophrenia symptoms.

NCLEX I *(1)*: Safe and Effective Care Environment

Multidisciplinary Team Involvement

(Which other disciplines were involved in caring for this client?)

Nurse, Nurse Practitioner (PCP), Pharmacist

Patient Resources

Emergency and crisis resources. Group therapy referrals.

Reflection Questions

Directions: Write a reflection including the following:

1. What was your biggest "take away" from participating in the care of this client?

   Upon completing this simulation, my biggest takeaway is how flexible care plans are to mold to the client's changing needs. An example of this idea could be seen in the client's nonadherence to their original medication, Risperidone. Learning that they were no longer taking this PO medication, I had assumed that they would educate the importance of taking the medication and try to begin oral therapy again. However, rather than lecturing the client, the care team immediately directed their interventions to best fit the client's current care needs. Instead of trying to continue PO medication admin, the care team wrote a new prescription for paliperidone IM, that could be given every month. This idea of reevaluating the goals and interventions of the patient's plan of care to best fit their current state is something that I will take with me and reevaluate myself on.

2. What was something that surprised you in the care of this patient?

   During the care of this client, I was shocked at how aware they were of their surroundings and perception of reality. When I thought of schizophrenia in the past, I had assumed that patients thought the hallucinations were normal and did not think that they would be able to differentiate these from reality. However, during the simulation, the client was able to express that they were aware that the voices were just hallucinations and provided examples of ways they were able to suppress them and reorient them.

3. What is something you would do differently with the care of this client?

   In the care of this client, I would have addressed their nutritional intake. At the beginning of the appointment, it was noted that the client had lost 20 pounds since their last visit 6 months ago. Although the client's BMI was not too low (29), I still would have offered more guidance and addressed the lack of nutritional intake more directly than how it was approached in the simulation.

4. How will this simulation experience impact your nursing practice?

   This simulation not only allowed me to gain a better understanding of how to care for someone experiencing acute symptoms of schizophrenia but also allowed me to understand the importance of family involvement in the care of these clients. During the simulation, I was able to practice and observe many therapeutic communication techniques, including standing at the side of the client and speaking in a clear and slow tone of voice. I will take these practices with me in my future nursing practice. This simulation also revealed how crucial it is to involve the family in the acute and long-term care of clients with mental illness. Many times, during the simulation, the client was unable to be an accurate historian, so it was the client's sister answering many of the questions and addressing her concerns with the PCP.

5. Discuss norms or deviations of growth and development that was experienced during the simulation, including developmental stage.

   Someone of this developmental age (21), should be expected to pursue and find many significant relationships with marital partners or friends and commit to a job they will find stability in. For the young adult, it should be expected that they are beginning to choose partners to continue life-long intimate relationships with and to start a family. Before the client stopped taking their medications, we learned through their chart history and sister, that they were actively involved in work, classes, and had many close friends they saw frequently. All these findings are norms for this stage of growth

and development. However, upon attendance at the clinic, the client was withdrawn from their friends and family, had stopped attending work and classes, and no longer took joy in participating in these activities. Along with their schizophrenia diagnosis, these behaviors are deviations from this stage of growth and development.