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

Student Name: Hannah Collins

ATI Scenario: Real life 1: 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 is genetically structured; however, plasticity can occur. **Plasticity** is the process of the brain adapting and changing as grey matter shrinks and thickens. The **cerebrum** is comprised of 4 different lobes in the brain (frontal, parietal, occipital, and temporal)- it is responsible for higher cognitive skills, self-awareness, and executive functions. The **frontal lobe** is responsible for conscious movement, problem-solving skills, and speech production. The **prefrontal cortex** is involved in moderating social behaviors, goal setting, and personality. The **parietal lobes** are involved in tactile sensation and spatial awareness. The **occipital lobe** is responsible for vision and visual processing. The **temporal lobe** is responsible for all things hearing and language comprehension related. The **brainstem** is responsible for life functions such as heart rate, breathing and sleep. The brainstem is comprised of the midbrain, pons, and medulla. The brainstem has projections called the reticular activating system which controls level of consciousness and sedation. The **cerebellum** takes part in motor control and cognitive processing. The cerebellum maintains our balance by coordinating muscles. The **limbic brain** is located deep in grey matter consisting of the hippocampus, amygdala, and basal ganglia. The **hippocampus** helps with making new memories. The **amygdala** plays a role in processing fear and anxiety. The **basal ganglia** play a role in the motor system, which relies on dopamine to maintain proper muscle tone and motor stability. The **thalamus** filters info before it reaches the cerebral cortex for processing.

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

Alterations in the brain structure, disruptions in brain's neurotransmitter system, and alterations to neural circuits caused by genetic and non-genetic factors are implicated in the etiology of schizophrenia. Dopamine hypothesis was the most widely accepted explanation for the biochemical pathophysiology in schizophrenia. It was concluded that there was a hyperactivity of dopamine in the limbic regions of the brain. Its also believed that there is hypoactive dopamine transmission in the PFC of schizophrenic patients. Abnormal levels of serotonin may also play a role in negative and mood symptoms. NMDA is thought to be associated with psychotic, negative, and cognitive symptoms. The glutamate hypothesis suggests that excess or insufficient glutamate activity may cause symptoms of schizophrenia. Schizophrenia also sometimes is believed to have a neurodegenerative factor after the onset of disease. Brain imaging has shown decreased tissue volume in both grey and white matter especially in the frontal lobe as well as decreased cortical grey matter. Decreased brain volume, larger lateral and third ventricles, atrophy in the frontal lobe and increased CSF have also been seen. In addition, C4 gene responsible for synaptic pruning has been thought to cause excessive or inappropriate pruning of neural connections resulting in cognitive symptoms seen in schizophrenia.

The **hypothalamus** maintains homeostasis by regulating temperature, blood pressure, libido, thirst, and circadian rhythms. The hypothalamus has an endocrine function secreting hormones as well as autonomic nervous system functions. The brain is composed of neurons that conduct electrical impulses called neurotransmitters that elicit electrical signals from one side to another. Once an electrical impulse reaches the end of a neuron the neurotransmitter is release from axon terminal at presynaptic neuron across a synapse. Here it attaches to specialized receptors. After attaching to receptors and exerting influence, the transmitter detaches and is destroyed. A neurotransmitter is a chemical messenger between neurons through which one neuron triggers another. There are 4 major groups of neurotransmitters: monoamines, amino acids, peptides, and cholinergic. Some examples of neurotransmitters include dopamine, acetylcholine, norepinephrine, serotonin, histamine, y-aminobutyric, and glutamate.		

To Be Completed Before the Simulation

Anticipated Patient Problem: Risk for self/other directed violence

Goal 1: Pt will verbalize thoughts of wanting to harm self or others during my time of care

Goal 2: Pt will not harm self or staff 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 for suicidal/homicidal ideations Upon admission and PRN	Assign 1:1 sitter, implement suicide precautions
Assess for a plan and means to carry out if suicidal thoughts are reported	Remove objects from patients' possession, move patient to a safe room
Assess for signs of aggression and agitation PRN	Reduce stimuli, provide safe outlet for physical energy
Assess coping mechanisms upon admission and at times of aggression	Educate on more effective/safer coping mechanism
Assess for psychosocial Sx such as decreased self-care, social withdrawal PRN	Encourage pt to discuss feelings
Assess for command hallucinations PRN	Ensure pt they are safe, stay with pt at all times, implement suicide precautions

To Be Completed Before the Simulation

Anticipated Patient Problem: Disturbed sensory perception

Goal 1: Pt will report auditory command hallucinations when they occur

Goal 2: Pt will not have reported hallucinations within a week of starting med regimen

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 for frequent blinking, head-turning, and/or talking to self as it occurs	Ask the pt what they are hearing If it is command hallucinations tell pt they are safe, ensure a safe environment, and always stay with the pt All other auditory hallucinations provide distractions such as music
Assess orientation status each shift and PRN	Orient to time, person, place
Assess for paranoia or delusions of persecution PRN and upon admission	Ensure pt they are safe If paranoia is r/t food, allow them to get food from vending machine, or provide packaged foods
Assess for medication adherence upon first encounter and if Sx persist/worsen	Encourage med compliance, educated on importance If reluctant to take meds orally, offer injections for increased compliance
Assess coping mechanisms upon admission	Educate on effective coping mechanisms to deal with triggers such as stress
Assess for substance use PRN	Educate on Sx of intoxication for drugs and how they can contribute to worsening of schizophrenia Sx

To Be Completed During the Simulation:

Actual Patient Problem #1: Ineffective coping
Goal: Pt will verbalize coping strategies to use in addition to medication therapy Met: ☑ Unmet:☐
Goal: Pt will identify possible triggers that may proceed positive symptoms Met: ☐ Unmet:☑

Actual Patient Problem #2: Disturbed sensory perception
Goal: Pt will have no reported hallucinations by week 2 of med therapy Met: ☐ Unmet: ☑
Goal: Pt will identify who to contact if command hallucinations occur Met: ☑ Unmet:☐

Additional Patient Problems:
#3: Impaired social interaction
#4: Imbalanced nutrition: less than body requirements
#5: Impaired communication
#6: Deficient knowledge

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
5	1300	RN overhears Ken talking with Emily and notices a disturbance in his speech	1315	RN and NP work together to determine Ken is displaying associative looseness	1 week later	Disturbances in speech no longer present, speech is appropriate
1,4	1330	Emily reports that Ken has not ate much the last 2 days; Ken has lost 20 lbs since last visit 6 months ago	1335	Educated on importance of eating 3 meals a day to avoid losing even more weight	1335	Ken states, "Okay, I will"
1,2, 6	1330	Non-compliance w/ prescribed meds (risperidone) states, "the pharmacy is trying to poison me", missed appointment in February and states, "I didn't need to come, I didn't need medication"	1345	Offer paliperidone injections vs. PO meds; educated on regimen for injections	1345	Agrees to injection therapy
2	1330	Lips moving as if Ken is talking to someone, reports auditory	1340	Educated to reach out to someone if command hallucinations	1340	Replied, "Okay, I will let someone know"

		hallucinations and hearing music denies command hallucinations		begin; provided info for crisis help		
6	1350	Hx of drug use reported including cigarette use and cocaine use	1350	Educated pt that Sx of intoxication can mimic Sx of schizophrenia which is important for the healthcare team to know; ordered a urine drug screen	1350	Emily states, "now I understand why you want to check his urine for drugs"
3,6	1400	Increased social isolation from friends and anxiety reported by Emily	1400	Educated Emily that visiting Ken and talking on a regular basis will help to maintain social interactions	1400	Emily agreed and showed understanding of teaching to support her brother
2	1 Week later 0900	Ken persists to hear music and voices such as mumbling; ken appears to be distracted and communicating with the voices	0900	Reorient Ken to his environment and ask Ken what he is hearing, if any threatening commands	0900	Ken states, "It like background noise at a restaurant"
3	0905	Ken reports going out with friends a few times since last visit	0905	Educated that med takes 2 weeks, roughly 13 days to take full effect; commend Ken on his increased interactions	0905	In regard to the teaching Emily states, "That is good to hear"
1,6	0915	Urine drug screen is positive for marijuana; Ken questioned, "Yea I smoke weed, so what?"	0915 0920	RN states, "tell me some of your reasons for using marijuana" Educated pt on other outlets for relaxation such as journaling, meditating, music	0915 0920	Ken states, "It helps me relax" Ken states, "I will try some of those techniques besides relying on my medication"

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
Serum glucose, serum cholesterol and lipids

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

Signs and Symptoms
Delusions, hallucinations, illusions, echolalia, loose associations, anhedonia, affective blunting, flat affect,

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

Contributing Risk Factors
Substance use disorders, other MH disorders, increased C4 activity, viral infections, anatomical abnormalities, head injury in adulthood, family Hx of schizophrenia

Therapeutic Procedures
Non-surgical
N/A

Surgical
N/A

NCLEX IV *(7)*: Reduction of Risk

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

Risk for suicide or violence towards others

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

Medication Management
1st and 2nd generation antipsychotics, antidepressants, mood stabilizers, benzodiazepines

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

Non-Pharmacologic Care Measures
CBT
Group therapy
Activity therapy
Milieu

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

Stressors the client experienced?

Fear of judgement
Denial of disorder
Inadequate resources for proper Tx (ie: access to meds)

Client/Family Education

Document 3 teaching topics specific for this client.
- Educate on importance of medication compliance
- Educate on medication side effects/adverse effects
- Educate on coping mechanisms for triggering events

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

Multidisciplinary Team Involvement
(Which other disciplines were involved in caring for this client?)
Nurse, psychiatrist, pharmacist, nutritionist

Patient Resources

Power of attorney info, crisis hotline info

Reflection Questions

Directions: Write reflection including the following:

1. What was your biggest "take away" from participating in the care of this client?
   My biggest takeaway is how important it is to build trust and rapport with your patients. Although Ken thought the pharmacy was trying to poison him, he felt comfortable with the clinic staff and felt safe for them to administer his injection.

2. What was something that surprised you in the care of this patient?
   Something that surprised me in the care of this patient was the patient's willingness to try injection therapy in order to increase med compliance. I found this surprising as he was very concerned that the pharmacy was trying to poison him.

3. What is something you would do differently with the care of this client?
   Something I would do differently with the care of this patient is encourage the pt to talk for himself more and report how he has been feeling. His sister Emily talked for him a lot and Ken didn't say much.

4. How will this simulation experience impact your nursing practice?
   This experience will help me to provide non-judgmental care to patients with MH disorders as well as help me to remember how important building rapport with patients is.

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

   The developmental stage seen in this simulation was young adult. The virtue of this stage is love, where individuals should form intense, lasting relationships. This developmental tasks has not been reached by Ken as he experiences social withdrawal.