Unit 10: Neurocognitive Disorders



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Mental Health Nursing

Doctor: Ali Ahmed Kadhim AL-Hatab

Hilla University / College of Nursing

Objectives

AT THE END OF THIS PRESENTATION, LEARNERS WILL BE ABLE TO:

- Describe the characteristics of and risk factors for cognitive disorders.
- Distinguish between delirium and dementia in terms of symptoms and

  other related issues
- Apply the nursing process to the care of clients with cognitive disorders

COGNITIVE DISORDER

- **Cognitions/ the brain's ability to process, retain, and use information.**

➢ **Cognitive abilities include:**

- Reasoning
- Judgement
- Perception
- Attention
- Comprehension
- Memory

These cognitive abilities are essential for many important tasks, including making decisions, solving problems, interpreting the environment, and learning new information.

COGNITIVE DISORDER

Cognitive disorder is a disruption or impairment in these higher-level functions of the brain.

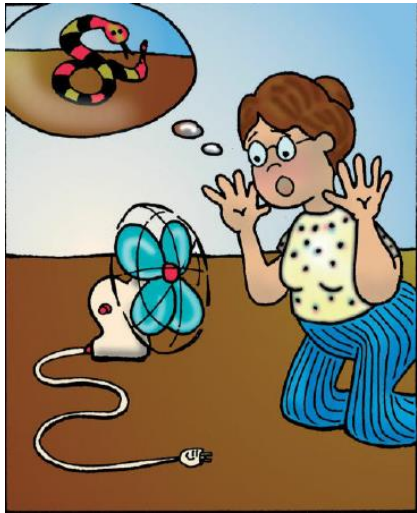
The primary categories of cognitive disorders are:

1. Delirium
2. Dementia
3. Amnestic disorders.

All of these cognitive disorders vary In their cause, treatment, prognosis, and effect on clients and family members or caregivers.

DELIRIUM

- **Delirium** is a syndrome that involves a disturbance of consciousness accompanied by a change in cognition.
- **Characteristics of Delirium DSM-V:**
- 1) Difficulty paying attention, easily distractible, and disoriented
- 2) May have sensory disturbances such as illusions, misinterpretations, or hallucinations.
- 3) Disturbances in the sleep–wake cycle
- 4) Changes in psychomotor activity
- 5) Emotional problems such as anxiety, fear, irritability, euphoria, or apathy



DELIRIUM OF ETIOLOGY

- **1)Physiologic and Metabolic :**

- Hypoxemia; electrolyte disturbances; renal or hepatic failure; hypoglycemia or hyperglycemia; dehydration; sleep deprivation; thyroid or glucocorticoid disturbances; thiamine or vitamin B12 deficiency; vitamin C, niacin, or protein deficiency; cardiovascular shock; brain tumor; head injury; and exposure to gasoline, paint solvents, insecticides, and related substances

ETIOLOGY CONT.

2) Infection: Sepsis, urinary tract infection, pneumonia, meningitis, encephalitis, HIV, and syphilis.

3) Drug-related:

- Intoxication: anticholinergics, lithium, alcohol, sedatives, and hypnotics
- Withdrawal: alcohol, sedatives, and hypnotics
- Reactions to anesthesia, prescription medication, or illicit (street) drugs

TREATMENT AND PROGNOSIS

The primary treatment for delirium is to identify and treat any causal or contributing medical conditions.

❖ **PSYCHOPHARMACHOLOGY**

- Clients with quiet, hypoactive delirium need no specific pharmacologic treatment aside from that indicated for the causative condition.
- Sedation to prevent inadvertent self-injury may be indicated.
- An antipsychotic medication, such as haloperidol (Haldol), may be used in doses of 0.5 to 1 mg to decrease agitation and psychotic symptoms, as well as to facilitate sleep.
- Haloperidol is useful in a variety of situations because it can be administered orally, intramuscularly (IM), or intravenously (IV).
- The exception is delirium induced by alcohol withdrawal, which is usually treated with benzodiazepines.

OTHER MEDICAL TREATMENT

- Adequate nutritious food and fluid intake speed recovery.
- IV fluids or even total parenteral nutrition may be necessary if a client's physical condition has deteriorated and he or she cannot eat and drink.
- physical restraints may be necessary so that needed medical treatments can continue. Restraints are used only when necessary and stay in place no longer than warranted because they may increase the client's agitation.

DELIRIUM

- **Nursing Management:**
- Nursing Diagnosis: Acute confusion related to temporary changes and disturbances in attention, cognition, psychomotor activity, level of consciousness, and/or sleep–wake cycle.

NURSING MANAGEMENT FOR DELIRIUM
EXPECTED OUTCOME

Immediate Outcome	Long-term Outcome
1. Engage in a trust relationship with staff and caregiver 2. Be free of injury 3. Increase reality contact 4. Cooperate with treatment	1. Establish or follow a routine for activities of daily living. 2. Demonstrate decreased confusion, illusions, or hallucinations 3. Experience minimal distress related to confusion 4. Validate perceptions with staff or caregiver before taking action

NURSING MANAGEMENT FOR DELIRIUM

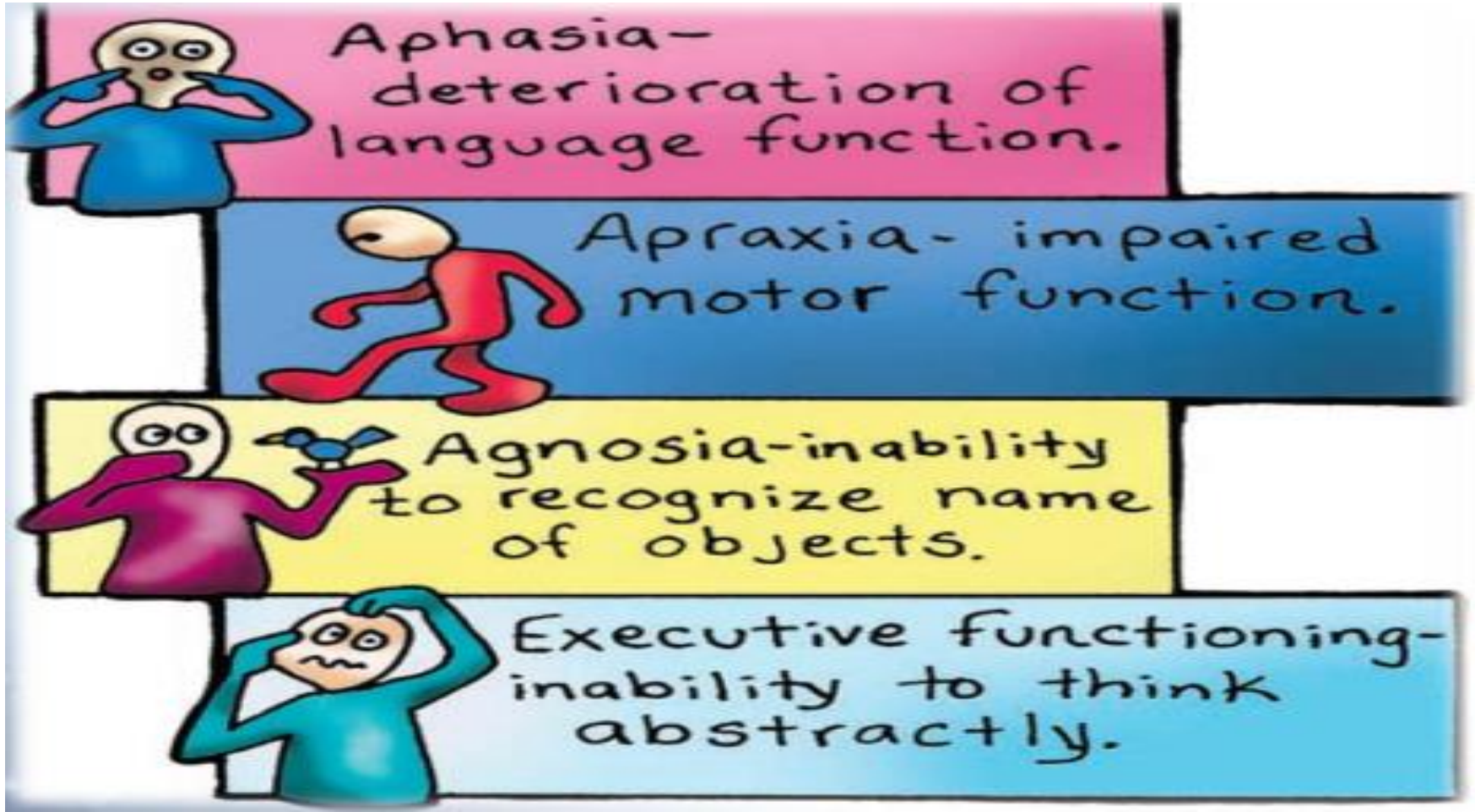
Assessment Data	Nursing intervention	rationales
• Poor judgment • Cognitive impairment • Impaired memory • Lack of or limited insight • Loss of personal control • Inability to perceive harm • Illusions • Hallucinations • Mood swings	• Prevent the client to assume responsibility for decisions or actions if that is unsafe. • If limits on the client's actions are necessary, explain limits and reasons clearly, within the client's ability to understand. • Involve the client in making plans or decisions as much as he or she is able to participate. • Daily assess the client's level of functioning or more often if needed. • Allow the client to make decisions as much as he or she is able. • Assist the client to establish a daily routine, including hygiene, activities, and so forth.	• Client's safety is a priority. The client may be unable to determine harmful actions or Situations • The client has the right to be informed of any restrictions and the reasons limits are needed • Compliance with treatment is enhanced if the client is emotionally invested • Clients with organically based problems tend to fluctuate frequently in terms • of their capabilities. • Decision making increases the client's participation, • independence, and self-esteem • habitual activities do not require decisions about whether or not to perform a particular task.

CLIENT AND FAMILY EDUCATION For Delirium

1. • Monitor chronic health conditions carefully.
2. • Visit physician regularly.
3. • Tell all physicians and health care providers what medications are taken, including OTC medications, dietary supplements, and herbal preparations.
4. • Check with physician before taking any nonprescription medication.
5. • Avoid alcohol and recreational drugs.
6. • Maintain a nutritious diet.
7. • Get adequate sleep.
8. • Use safety precautions when working with paint solvents, insecticides, and similar products.

DEMENTIA

- **Dementia is a mental disorder that involves multiple cognitive deficits, primarily memory impairment, and at least one of the following cognitive disturbances:**



STAGES OF DEMENTIA:

- **Mild dementia**: The client has difficulty finding words, frequently loses objects, and begins to experience anxiety about these losses.
- **Moderate dementia**: Confusion with progressive memory loss. (The person no longer can perform complex tasks but remains oriented to person and place).
- **Severe dementia**: Personality and emotional changes occur. The person may be delusional, wander at night, forget the names of his or her spouse and children, and require assistance in activities of daily living.

DEMENTIA

- **Etiology of Dementia:**
- ➢Decrease metabolic activity in the brain
- ➢Genetic component, such as Huntington's disease
- ➢Abnormality of apolipoprotein E gene (APOE), such as in Alzheimer's disease. APOE provides instructions for making a protein.
- ➢Infections such as human immunodeficiency virus (HIV) infection OR Creutzfeldt–Jakob disease.

RELATED DISORDERS
DEMENTIA

- **Substance- or medication-induced mild or major NCD** is characterized by neurocognitive impairment that persists beyond intoxication or withdrawal.
- **Long-term use of alcohol that results in dementia** is called Korsakoff syndrome or dementia. It was previously known as an amnestic disorder since amnesia and confabulation are common.
- **Mild or major NCD due to another medical condition** is caused by diseases such as brain tumor, brain metastasis, subdural hematoma, arteritis, renal or hepatic failure, seizures, or multiple sclerosis.
- **Unspecified NCD** is characterized by neurocognitive symptoms that cause the person distress or impairment, but do not meet the criteria for any other NCD.
- **Neurocognitive deficits** due to stroke, head injuries, carbon monoxide poisoning, or brain damage from other medical causes were previously classified as amnestic disorders.

TREATMENT AND PROGNOSIS

TABLE 24.2 Drugs Used to Treat Dementia

Name	Dosage Range and Route	Nursing Considerations
Donepezil (Aricept)	5–10 mg orally per day	Monitor for nausea, diarrhea, and insomnia. Test stools periodically for gastrointestinal bleeding.
Rivastigmine (Exelon)	3–12 mg orally per day divided into two doses	Monitor for nausea, vomiting, abdominal pain, and loss of appetite.
Galantamine (Reminyl, Razadyne, Nivalin)	16–32 mg orally per day divided into two doses	Monitor for nausea, vomiting, loss of appetite, dizziness, and syncope.
Memantine (Namenda)	10–20 mg/day divided into two doses	Monitor for hypertension, pain, headache, vomiting, constipation, and fatigue.

DEMENTIA

- **Nursing Management:**
- Nursing Diagnosis: Impaired Memory: Inability to remember or recall information or behavioral skills.

NURSING MANAGEMENT FOR DEMENTIA
EXPECTED OUTCOME

1. The client will be free of injury.
2. The client will maintain an adequate balance of activity and rest, nutrition, hydration, and elimination.
3. The client will function as independently as possible given his or her limitations.
4. The client will feel respected and supported.
5. The client will remain involved in his or her surroundings.
6. The client will interact with others in the environment.

NURSING MANAGEMENT FOR DEMENTIA

Assessment Data	Nursing Intervention	Rationales
• Inability to recall factual information or events • Inability to learn new material or recall previously learned material • Inability to determine whether a behavior was Performed • Agitation or anxiety regarding memory loss	1. Provide opportunities for reminiscence or recall of past events, on a one-to-one basis or in a small group 2. Encourage the client to use written Reminders 3. Minimize environmental changes and change the routine when necessary 4. Provide single step instructions for the client when instructions are needed. 5. Provide verbal connections about using implements. “Here is a spoon you can use to eat your lunch.” 6. Assist with tasks as needed, but do not do things that the client can still do independently.	1. Reminiscence is usually an enjoyable activity for the client. 2. Written cues decrease the client’s need to recall appointments, activities, and so on from memory 3. There is less demand on memory function when daily routine is met. 4. Clients with memory impairment cannot remember multistep instructions. 5. The client may not remember what an implement is for 6. To maximize client’s independent function

Comparison of Delirium and Dementia

Indicator	Delirium	Dementia
1. Onset	1. Rapid	1. Gradual and insidious
2. Duration	2. Brief (hours to days)	2. Progressive deterioration
3. Level of consciousness	3. Impaired, fluctuates	3. Not affected
4. Memory	4. Short-term memory Impaired	4. Short- and then long-term memory impaired, eventually destroyed
5. Speech	5. May be slurred, rambling, pressured, irrelevant	5. Normal in early stage, progressive aphasia in later Stage
6. Thought Processes	6. Temporarily disorganized	6. Impaired thinking, eventual loss of thinking abilities
7. Perception	7. Visual or tactile hallucinations, delusions	7. Often absent, but can have paranoia, hallucinations, Illusions
8. Mood	8. Anxious, fearful if hallucinating; weeping, irritable	8. Depressed and anxious in early stage, labile mood, restless pacing, angry outbursts in later stages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