Cognitive Mental Disorders NCLEX Review

Cognitive Mental Disorders

- disruption or impairment in any of the cognitive abilities of the brain
- cognitive abilities include reasoning, judgment, perception, attention, comprehension, and memory

Primary Categories

1. Delirium
2. Dementia
3. Amnestic Disorder

II. Specific Disorders

A. Delirium

- Acute, usually reversible brain disorder characterized by clouding of the consciousness (decreased awareness of the environment) and a reduced ability to focus and maintain attention
- Develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day
- Evidence from history, physical examination, or laboratory findings suggests that the disturbance is caused by the direct physiological consequences of a general condition
- May have sensory disturbances such as illusions, misinterpretations, or hallucinations
- May also experience disturbances in the sleep–wake cycle, changes in psychomotor activity, and emotional problems such as anxiety, fear, irritability, euphoria, or apathy

Etiology:

- Delirium almost always results from an identi?able physiologic, metabolic, or cerebral disturbance or disease or from drug intoxication or withdrawal:

Assessment Findings:

- Delirium has sudden onset and an identifiable cause

Signs and Symptoms:

- Fluctuating levels of consciousness (alternating periods of coherence with periods of confusion); with disorientation that worsens at the end of the day – Sundown Syndrome
- Alternating patterns of Hyperactivity (typical of drug withdrawal) to hypoactivity (typical of metabolic imbalance)

Hyperactive Behaviors

- Rambling, bizarre, incoherent, rapid, pressured, or loud speech
- Restlessness, picking at clothes or bed linen, irritability, euphoria
- Calling out for help, striking out at others, bizarre and destructive behavior, combativeness, anger, profanity

Hypoactive Behaviors

- Limited, dull patterns of speech
- Lethargy, apathy, withdrawn behavior
- Reduced alertness, awareness of environment

- Cognitive changes: disorganized thinking, diminished ability to focus attention, disorientation to time and place, impairment in recent and remote memory
- Visual or auditory hallucinations, frightening delusions
- Sleep pattern disturbances, including vivid and terrifying dreams or nightmares ? Predominant emotion is fear with a high level of anxiety

Treatment and Prognosis:

- The primary treatment for delirium is to identify and to treat any causal or contributing medical conditions.
- Other Supportive medical treatment
  - Intravenous fluids and total parenteral nutrition
  - Trazodone (Desyrel) 25 to 500 mg/day
    - Note: Can decrease agitation and aggression without decreasing cognitive performance
  - Haloperidol (Haldol) 0.5 to 1 mg
    - Note: decreases agitation
  - Buspirone (Buspar) 10 to 60 mg/day
    - Note: not sedating and fewer side-effects, preferable to benzodiazepines
  - Sedatives and benzodiazepines are avoided because they may worsen delirium

Nursing Interventions for Delirium

1. Promoting client’s safety
   - Teach client to request assistance for activities (getting out of bed, going to bathroom)
   - Provide close supervision to ensure safety during these activities.
   - Promptly respond to client’s call for assistance.

1. Managing client’s confusion
   - Speak to client in a calm manner in a clear low voice; use simple sentences.
   - Allow adequate time for client to comprehend and respond
   - Allow client to make decisions as much as able.
   - Provide orienting verbal cues when talking with client.
   - Use supportive touch if appropriate.

1. Controlling environment to reduce sensory overload
   - Keep environmental noise to minimum (television, radio).

- Monitor client’s response to visitors; explain to family and friends that client may need to visit quietly one on one.
- Validate client’s anxiety and fears, but do not reinforce misperceptions.

1. Promoting sleep and proper nutrition
    - Monitor sleep and elimination patterns
    - Monitor food and ?uid intake; provide prompts or assistance to eat and drink adequate amounts of ?ood and ?uids
    - Provide periodic assistance to bathroom if client does not make requests
    - Discourage daytime napping to help sleep at night
    - Encourage some exercise during day like sitting in a chair, walking in hall, or other activities client can manage.

B. Dementia

- A chronic, irreversible brain disorder characterized by impairments in memory, abstract thinking, and judgement, as well as changes in personality
- syndrome with progressive deterioration in intellectual functioning secondary to structural or functional changes
- chronic development of multiple cognitive deficits manifested by memory impairment and one or more of the following cognitive disturbances:
    - aphasia – a loss of the ability to understand or use language
    - apraxia – an inability to carry out skilled and purposeful movement; the inability to use objects properly despite intact motor abilities
    - agnosia – inability to recognize or name objects despite intact sensory abilities
    - Disturbance in executive functioning, which is the ability to think abstractly and to plan, initiate, sequence, monitor, and stop complex behavior
- Memory impairment is the prominent early sign
- Course is insidious and progressive, characterized by gradual onset and continuing cognitive decline
- experiences a steady decline in physical and mental functioning and usually requires long-term care in a specialized facility in the final stages of the illness
- The most common type of dementia is Alzheimer’s disease

Etiology:

The most common types of dementia and their known or hypothesized causes follow:

1. Alzheimer’s disease - progressive brain disorder that has a gradual onset but causes an increasing decline in functioning; evidenced by atrophy of cerebral neurons, senile plaque deposits, and enlargement of the third and fourth ventricles of the brain.
2. Vascular dementia - has symptoms similar to those of Alzheimer’s, but onset is typically abrupt followed by rapid changes in functioning, a plateau or leveling-off period, more abrupt changes, another leveling-off period, and so on; multiple vascular lesions of the cerebral cortex and subcortical structures resulting from the decreased blood supply to the

brain.

3. Creutzfeldt-Jakob disease - central nervous system disorder that involves altered vision, loss of coordination or abnormal movements, and dementia that usually progresses rapidly (a few months). The cause of the encephalopathy is an infectious particle resistant to boiling, some disinfectants (e.g., formalin, alcohol), and ultraviolet radiation.
4. HIV disease can lead to dementia and other neurologic problems; these may result directly from invasion of nervous tissue by HIV or from other AIDS-related illnesses such as toxoplasmosis and cytomegalovirus.
5. Parkinson's disease - slowly progressive neurologic condition characterized by tremor, rigidity, bradykinesia, and postural instability; results from loss of neurons of the basal ganglia
6. Huntington's disease - inherited, dominant gene disease that primarily involves cerebral atrophy, demyelination, and enlargement of the brain ventricles.
7. Dementia can be a direct pathophysiologic consequence of head trauma. The degree and type of cognitive impairment and behavioral disturbance depend on the location and extent of the brain injury. Repeated head injury (for example, from boxing) may lead to progressive dementia.

Assessment Findings:

Dementia is a progressive disease and symptoms can be divided into three (3) stages:

- Stage 1 (Mild dementia) – typically lasts 1 to 3 years
    - memory loss of recent events
    - personality changes, such as becoming more subdued or withdrawn
    - getting lost or misplacing objects
    - difficulty with problem-solving and complex tasks, such as managing finances
    - trouble organizing or expressing thoughts
- Stage 2 (Moderate dementia) – lasting approximately 2 to 10 years
    - increasing confusion or poor judgment
    - greater memory loss, including a loss of events in the more distant past
    - needing assistance with tasks, such as getting dressed, bathing, and grooming
    - significant personality and behavior changes, often caused by agitation and unfounded suspicion
    - poor impulse control with frequent outbursts and tantrums
    - changes in sleep patterns, such as sleeping during the day and feeling restless at night
    - wandering or aggressive behavior, hallucinations, delusions
    - Confabulation – the filling in of memory gaps with imaginary information in an attempt to distract others from observing the deficit
    - Agnosia
        - Auditory Agnosia – inability to recognize familiar sounds such as ringing doorbell or telephone
        - Astereognosia – or tactile agnosia, inability to identify familiar objects such as a comb or pencil when placed in the hand
        - Alexia - or visual agnosia, inability to identify an object or its use by sight such as a toothbrush or telephone
        - Agraphia – inability to read or write
- Stage 3 (Severe dementia) – lasting 8 to 10 years before death occurs

- Progressive decrease in response to environmental stimuli leading to total nonresponsive or vegetative state
- Severe decline in cognitive function, losing ability to recognize others or even self
- a loss of the ability to communicate; may scream spontaneously or be able to say only one word; frequently becomes mute
- a need for full-time daily assistance with tasks, such as eating and dressing
- a loss of physical capabilities, such as walking, sitting, and holding one's head up and, eventually, the ability to swallow, to control the bladder, and bowel function
- an increased susceptibility to infections, such as pneumonia

Treatment and Prognosis:

- For degenerative dementias, no direct therapies have been found to reverse or retard the fundamental pathophysiologic processes.
- Acetylcholine Replenishment therapy – can slow down progression of mild to moderate dementia (acetylcholine precursors, cholinergic agonists, and cholinesterase inhibitors)
  - Tacrine (Cognex) effects can be seen in 6 weeks
    - Note: can cause elevation in liver enzymes, discontinue therapy if occurs; liver function test every 1 to 2 weeks
  - Donepezil (Aricept), slows deterioration without serious liver toxicity attributed to Tacrine ? rivastigmine (Exelon)
  - galantamine (Reminyl)
- Other medications for symptomatic relief:
  - Antidepressants are effective for significant depressive symptoms
  - Antipsychotics such as haloperidol (Haldol), olanzapine (Zyprexa), risperidone (Risperdal), and quetiapine (Seroquel) may be used to manage psychotic symptoms of delusions, hallucinations, or paranoia
  - Lithium carbonate, carbamazepine (Tegretol), and valproic acid (Depakote) help to stabilize affective lability and to diminish aggressive outbursts.
- In Vascular Dementia, appropriate treatment of the underlying vascular condition is towards improvement of cerebral blood ?ow
  - changes in diet, exercise, control of hypertension or diabetes

Nursing Interventions for Dementia

1. Promoting client's safety and protecting from injury
   - Offer unobtrusive assistance with or supervision of cooking, bathing, or self-care activities.
   - Identify environmental triggers to help client avoid them.

1. Promoting adequate sleep, proper nutrition and hygiene, and activity
   - Prepare desirable foods and foods client can self-feed; sit with client while eating
   - Monitor bowel elimination patterns; intervene with ?uids and ?ber or prompts.
   - Remind client to urinate; provide pads or diapers as needed, checking and changing them frequently to avoid infection, skin irritation, unpleasant odors
   - Encourage mild physical activity such as walking.

1. Structuring environment and routine
    - Encourage client to follow regular routine and habits of bathing and dressing rather than impose new ones
    - Monitor amount of environmental stimulation, and adjust when needed.

1. Providing emotional support
    - Be kind, respectful, calm, and reassuring; pay attention to client.
    - Use supportive touch when appropriate.

1. Promoting interaction and involvement
    - Plan activities geared to client's interests and abilities.
    - Reminisce with client about the past.
    - If client is nonverbal, remain alert to nonverbal behavior.
    - Employ techniques of distraction, time away, going along, or reframing to calm clients who are agitated, suspicious, or confused

Nursing Interventions specific to Issues related to Alzheimer's Disease

- Wandering
    - Provide the client with a safe environment.
    - Prevent unsafe wandering.
    - Provide the client with close supervision.
    - Close and secure doors.
    - Use identification bracelets and electronic surveillance.

- Communication
    - Adapt to the communication level of the client.
    - Use a firm volume and a low-pitched voice to communicate.
    - Stand directly in front of the client and maintain eye contact.
    - Call the client by name and identify self; wait for a response.
    - Use a calm and reassuring voice.
    - Use pantomime gestures if the client is unable to understand spoken words.
    - Speak slowly and clearly, using short words and simple sentences.
    - Ask only one question at a time and give one direction at a time.
    - Repeat questions if necessary, but do not rephrase.
- Impaired judgment
    - Remove throw rugs, toxic substances, and dangerous electrical appliances from the environment.
    - Reduce hot water heater temperature.

- Altered thought processes
    - Call the client by name.
    - Orient the client frequently.
    - Use familiar objects in the room.

    - Place a calendar and clock in a visible place.
    - Maintain familiar routines.
    - Allow the client to reminisce.
    - Make tasks simple.
    - Allow time for the client to complete a task.
    - Provide positive reinforcement for positive behaviors.
- Altered sleep patterns
    - Allow the client to wander in a safe place until he or she becomes tired.
    - Prevent shadows in the room by using indirect light.
    - Avoid the use of hypnotics because they cause confusion and aggravate the sundown effect.
- Agitation
    - Assess the precipitant of the agitation.
    - Reassure the client.
    - Remove items that can be hazardous when the client is agitated.
    - Approach the client slowly and calmly from the front, and speak, gesture, and move slowly.
    - Remove the client to a less stressful environment; decrease excess stimuli.
    - Use touch gently.
    - Do not argue with or force the client.

C. Amnestic disorders

- characterized by a disturbance in memory that results directly from the physiologic effects of a general medical condition or the persisting effects of a substance such as alcohol or other drugs
- memory impairment characterized by inability to learn new information or inability to recall previously learned information
- Confusion, disorientation, and attentional de?cits are common
- Clients with amnestic disorders are similar to those with dementia in terms of memory de?cits, confusion, and problems with attention. They do not, however, have the multiple cognitive de?cits seen in dementia

Etiology:

1. Amnestic Disorder due to a general medical condition
    - stroke or other cerebrovascular events, head injury,

1. Substance-induced persisting amnestic disorder amnestic disorder
    - carbon monoxide poisoning, chronic alcohol ingestion, and vitamin B12 or thiamine de?ciency

Treatment and Prognosis

- focuses on eliminating the underlying cause and rehabilitating the client and includes preventing further medical problems

Note: Nursing interventions are similar to those used when dealing with the memory loss, confusion, and impaired attention abilities of clients with dementia or delirium