CARE OF CLIENTS WITH MALADAPTIVE PATTERNS OF BEHAVIOR

NCMB317

Neurocognitive Disorders

NEUROCOGNITIVE DISORDERS

- Formerly called COGNITIVE DISORDER
- It occurs when there is impairments or disruptions in cognitive functions that interferes with normal functioning of an individual.

MEDICAL ASSESSMENT AND DIAGNOSTIC TESTS

- Medical history
- Physical exam
- Neurological tests
- Laboratory screening tests
- Brain scans
  - CT scan
  - MRI
  - PET
  - SPECT

TYPES OF NEUROCOGNITIVE DISORDERS

- DSM IV-TR (ADD + C)
  - Amnestic Disorder
  - Delirium
  - Dementia
  - Cognitive disorders not otherwise specified
- DSM5 (DMM)
  - Delirium
  - Major Neurocognitive Disorder (Dementia)
  - Mild Neurocognitive Disorder

NURSING PROCESS

	DELIRIUM	DEMENTIA
HISTORY	• Medical illness, prescribed medications, alcohol, illicit drugs, OTC. • Perform 4AT	• Medical and drug history • Mental status examination can provide information about the client's cognitive abilities
MOTOR BEHAVIOR	• HYPERKINETIC DELIRIUM: hyperactive, motor restlessness • HYPOKINETIC DELIRIUM: sluggish and lethargic. • MIXED DELIRIUM fluctuating behavior	APRAXIA • Loss of ability to perform purposeful activities despite intact motor abilities • Neglect personal hygiene
SPEECH	• L: Loud, rapid and scream • I: incoherent, irrelevant • P: perseveres on a single topics and confabulate; pressured speech	• APHASIA: inability to understand and express language • ECHOLALIA: repetition of the words of others • PALILALIA: involuntary repetition of words, syllables, phrases or sounds; slurred speech and total loss of language function during the late stage
THOUGHT PROCESS and CONTENT	• Disorganized thought process • Thought content is fragmented and illogical • Delusions believing that their altered sensory perceptions are real	• L - loss of cognitive functions Ex: inability to solve problems, take actions and perform tasks such as planning, budgeting, decision making, sequencing, monitoring or stop complex behavior
		• I - impaired abstract thinking • D - delusions of persecution as dementia progresses

INTELLECTUAL PROCESSES	• Cannot focus, sustain or shift attention effectively
	• Loss of recent and remote memory
		• AGNOSIA: inability to recognize objects and person
		• ANOMIA: inability to remember names of everyday objects
		  ◦ attention and concentration is impaired
		  ◦ Loss of recent memory then remote memory

JUDGMENT	• Impaired judgment (client cannot perceive potentially harmful situations)	• Impaired judgment (they may underestimate risks and unrealistically appraise their abilities resulting to high risk for injury)
ROLE & RELATIONSHIPS	• Clients are unlikely to fulfill their roles during the course of delirium however they may regain their previous level of functioning	• ROLE: work performance is greatly affected because of memory and cognitive deficits • RELATIONSHIP: results to "Role reversal"
SELF-CONCEPT	• Clients may feel guilt, shame and humiliated and this may result to long-term problems with self-concept, if delirium has resulted from alcohol, illicit drug use or overuse of prescribed medications	• Client may be angry or frustrated with themselves for misplacing objects or forgetting important things OR angry to others for taking their things • Client may be depressed for getting old and losing their functioning
PHYSIOLOGIC and SELF-CARE CONSIDERATION	SLEEP DISTURBANCES • Daytime sleepiness • Nighttime agitation EATING AND ELIMINATION DISTURBANCES • Ignore or fail to perceive internal body cues such as hunger, thirst, and elimination	• N - Nap during the day and wander at night (sleep pattern disturbance) • I - ignore internal cues (hunger or thirst) • C - can't bath, dress and groom themselves • E - experience bowel and bladder incontinence and difficulty cleaning themselves after elimination

AMNESTIC DISORDER

- Amnestic disorder can also be simply called AMNESIA
- It is characterized by disturbance in memory that can be temporary or permanent.
- It can be caused by damage to areas of the brain that are vital for memory processing.
  - Left brain hemisphere
  - Hippocampus
  - Cerebral cortex

CAUSES

- AMNESTIC DISORDERS DUE TO SYSTEMIC MEDICAL CONDITIONS
  - *Alcohol Abuse*
    - Short-term alcohol use can cause BLACKOUT. This is a temporary form of anterograde amnesia.
    - Long-term alcoholism can cause WERNICKE-KORSAKOFF SYNDROME (ALCOHOL DEMENTIA).
  - *Hypoglycemia*
    - Low blood sugar can lead to temporary impairment in memory. In most cases, memory should improve back to normal soon after the sugar levels return to normal.
  - *Hyperglycemia*
    - High blood sugar has been linked with longer term effects on memory.
- AMNESTIC DISORDER DUE TO GENERAL MEDICAL CONDITION
  - Seizures
  - Head trauma/injuries (closed and penetrating)
  - Brain tumors
  - Brain inflammation
  - Hypoxia/Anoxia
  - Multiple Sclerosis
  - ECT
  - Neurotoxins
- SUBSTANCE-INDUCED PERSISTING AMNESTIC DISORDER
  - Ingestion of a substance.
    - Benzodiazepines and other sedative-hypnotics
    - Over the counter medications (antihistamines, cough syrups)
  - Specific substance should be recorded when coding (i.e., cocaine-induced persisting amnestic disorder).
  - Can code as "unknown" substanceinduced
- TRAUMA OR STRESS
  - Severe psychological trauma or stress can cause DISSOCIATIVE DISORDERS/DISSOCIATIVE AMNESIA.
  - Formerly known as PSYCHOGENIC AMNESIA
    - Example: being the victim of a violent crime, rape
    - With this condition, the mind rejects thoughts, feelings, or information that are too overwhelmed to handle.
  - Types of dissociative disorder
    - Dissociative amnesia
    - Dissociative identity disorder
    - Dissociative fugue

TYPES OF MEMORY IMPAIRMENT

- ANTEROGRADE AMNESIA
  - Is forgetting recent memories or inability to form new memories.
  - This effect can be temporary.
    - Ex: blackout caused by too much alcohol.
  - This can also be permanent.
    - Ex: One can experience it if the hippocampus is damaged because hippocampus plays an important role in forming memories.
- RETROGRADE AMNESIA
  - Is forgetting further events or inability to recall existing or, previously made memories.
  - This type of amnesia tends to affect recently formed memories first. Older memories, such as memories from childhood, are usually affected more slowly. Diseases such as dementia cause gradual retrograde amnesia.
- WERNICKE-KORSAKOFF SYNDROME
  - Also known as ALCOHOL DEMENTIA
  - It is a set of neurological conditions that result from THIAMINE (Vitamin B1) DEFICIENCY.
    - Wernicke's syndrome/encephalopathy represents the "acute" phase
    - Korsakoff's syndrome represents the "chronic" phase.

CLASSIFICATION OF DISSOCIATIVE AMNESIA

- LOCALIZED AMNESIA
  - No memory of a specific traumatic event that took place
- SELECTIVE AMNESIA
  - Remember only selective part/s of events that occurred in a defined period of time
- GENERALIZED AMNESIA
  - Complete amnesia for one's whole life

DELIRIUM

- DELIRIUM is a neurocognitive disorder characterized by serious disturbance in mental abilities that results in confused thinking and reduced awareness of the environment.
- The disturbance of awareness tends to develop over hours to days, and typically fluctuates in the course of the day, often worsening in the evening.

CAUSES

- PHYSIOLOGICAL AND METABOLIC CONDITIONS(HE iS BRAVE)
  - **H** - Hypoxemia
  - **E** - Electrolyte imbalance
  - i**S** - Sleep disturbances
  - **B** - Brain tumor
  - **R** - Renal/Hepatic failure
  - **A** - Any head injury
  - **V** - Vitamin deficiency
  - **E** - Exposure to noxious substances (paints, solvents, insecticides)
- INFECTIONS
  - *Systemic* (PUS)
    - **P** - Pneumonia
    - **U** - UTI
    - **S** - Sepsis
  - *Cerebral* (HEMS)
    - **H** - HIV
    - **E** - Encephalitis
    - **M** - Meningitis
    - **S** - Syphilis
- DRUG-RELATED
  - *Drug Withdrawal* (HAS)
    - **H** - Hypnotics
    - **A** - Anticholinergics
    - **S** - Sedatives
  - *Drug Intoxication* (LASH)
    - **L** - Lithium
    - **A** - Anticholinergics
    - **S** - Sedative
    - **H** - Hypnotics

DELIRIUM TREMENS

- DELIRIUM TREMENS (DT), also known as ALCOHOL WITHDRAWAL DELIRIUM (AWD),
- A severe type of withdrawal from alcohol.
- Usually, symptoms appear 2 to 4 days after the last drink, But some symptoms may not show up until up to 10 days after giving up alcohol.

- DTs usually lasts for 2 to 3 days, but symptoms may linger for as long as a week.
- About 5% of people in alcohol withdrawal get DTs. If untreated, delirium tremens can cause a heart attack, stroke, and death.
  - SYMPTOMS:
    - 3-24 hrs. after the last drink called *"The SHAKES"* or *"Mild Tremors"*
      - **S** - sweating
      - **H** - hypertension, and increased pulse and heart rate
      - **A** - anxiety, confusion, agitation
      - **K** - none
      - **E** - excessive vomiting/ nausea
      - **S** - seizures/ tremors / startled behavior
    - B. 36-72 hrs. after the last drink results to *"DELIRIUM TREMENS"*- hallucination (48 hours)

MAJOR NEUROCOGNITIVE DISORDER

- MAJOR NEUROCOGNITIVE DISORDER (previously called DEMENTIA)
- It is a condition in which higher brain functions are impaired as a result of neuronal damage.
- It is characterized by impairments in memory, speech, reasoning, intellectual function, and/or spatial-temporal awareness.

CAUSES

- DEMENTIA DUE TO GENERAL MEDICAL CONDITIONS:
  - Fluid and electrolyte imbalances
  - Cardiopulmonary insufficiency
  - Endocrine disorders
  - Renal/hepatic failure
  - Vascular Diseases
- VASCULAR DEMENTIA
  - CT/MRI shows multiple vascular lesions of the cerebral cortex and sub-cortical structures resulting to decrease blood supply to the brain
- DEMENTIA DUE TO INFECTIOUS DISEASE
  - *HIV Infection*
    - Characterized by mild sensory impairment to gross memory and cognitive deficits to severe muscle dysfunction
  - *Creutzfeldt-Jacob disease (CJD)*
    - Also known as subacute spongiform encephalopathy or neurocognitive disorder due to PRION DISEASE
    - Early symptoms include memory problems, behavioral changes, poor coordination, and visual disturbances.
    - Later symptoms include dementia, involuntary movements, blindness, weakness, and coma.
    - About 70% of people die within a year of diagnosis.
    - Onset: 40-60.
- SUBSTANCE-INDUCED DEMENTIA
  - Dementia is related to the persistent or prolong use of
  - Alcohol
  - Inhalants, sedatives, hypnotics and anxiolytics
  - Medication such as anticonvulsants.
  - Toxins such as lead, mercury, carbon monoxide insecticides, and industrial solvents.
- DEMENTIA DUE TO HEAD TRAUMA
  - A head trauma is any sort of injury to the brain, skull, or scalp. Common head injuries include concussions, skull fractures, and scalp wounds.
  - A traumatic brain injury (TBI) can increase the risk of dementia by 80 percent, even 15 years after an accident.
  - A concussion or other traumatic brain injury (TBI) can increase the risk of developing dementia even 30 years later, according to a 2018 study
- DEMENTIA DUE TO GENETIC FACTOR
  - *Huntington's Disease*
    - an inherited, dominant gene disease that involves cerebral atrophy and enlargement of the brain ventricles.
    - Characterized by:
      - choreiform movements (facial contortions, twisting, turning and tongue movements),
      - personality changes, memory loss
      - decreased intellectual functioning and other signs of dementia.
    - Symptoms can develop at any time, but they often first appear when people are in their 30s or 40s.
    - If the condition develops before age 20, it's called juvenile Huntington's disease.
- DEMENTIA DUE TO DECREASE METABOLISMS AND FUNCTIONS IN THE BRAIN
  - *Alzheimer's Disease*
    - Progressive mental deterioration due to neurofibrillary tangles and senile plaques deposit in the nerve cells
    - It is the most common cause of premature senility that can occur in middle or old age.
  - Onset is insidious followed by rapid changes in functioning characterized by:
    - Increase decline in functioning: loss of speech and motor function
    - Profound personality and behavioral changes:
      - delusion
      - hallucination
      - paranoia
      - inattention to hygiene, etc.
  - Late onset (after 65 years old) average duration of 8-10 years
    - Diagnosed by CT, MRI, PET, SPECT Scans show atrophy of cerebral neurons, senile plaque deposits and fibrillary tangle resulting to enlargement of the 3rd and 4th ventricles of the brain.
  - *Parkinson's Disease*
    - Due to loss of dopaminergic neuron in the substantia nigra
    - Characterized by impaired movements such as tremor, rigidity, motor slowing, bradykinesia, postural instability.
    - Other symptoms include impaired cognitive functions, memory and executive functioning.
  - *Pick's Disease*
    - Degenerative brain disease that affects the frontal and temporal lobes resulting to clinical picture similar to Alzheimer's disease.
    - This disease is one of many types of dementias known as frontotemporal dementia (FTD) caused by frontotemporal lobar degeneration (FTLD).
    - Early manifestations includes loss of social skills and inhibitions, emotional blunting and language abnormalities
    - Later manifestations includes difficulty with language, behavior, thinking, judgment, and memory and personality changes.

- Onset is commonly seen in adults aged 50-60; death occurs 2-5 years.
- *Lewy Body Dementia*
  - Lewy body disease is one of the most common causes of Dementia in the elderly.
  - Lewy body disease exists either in pure form or in conjunction with other brain changes, including those typically seen in Alzheimer's disease and Parkinson's disease thus hard to diagnose because these diseases have similar symptoms.
  - Scientists think that Lewy body disease might be related to these diseases, or that they sometimes happen together.
  - The disease usually begins between the ages of 50 and 85 and gets worse over time.
  - The disease has no cure thus treatment focuses on drugs that help reduce symptoms."

STAGES OF DEMENTIA

- STAGE I - MILD
  - Last 2 - 4 years
  - Losses objects frequently
  - Difficulty finding words
  - Forgetfulness
  - Occupational & social setting is less enjoyable
- STAGE II - MODERATE
  - May last several years
  - Confusion is apparent
  - Oriented to date & pla
  - Progressive memory loss
  - Requires assistance to perform tasks because the client losses ability to live independently
  - Inability to recall information (address, numbers)
- STAGE III - SEVERE
  - Nursing home care or hospital facility is needed
  - Personality changes
  - Anger, irritability, loss of inhibitions, hypersexualities vulgarities
  - Loss of memory as manifested by aphasia, anomia, agnosia, apraxia, etc
  - Wanders at night and difficulty to go back home (get lost) due to memory loss and confusion
  - Even name of spouse and children can't recall
  - Requires assistance for ADL

NURSING DIAGNOSIS AND INTERVENTIONS

- DISTRACTION
  - rechanneling client's attention and energy to a more neutral topic.
- TIME AWAY
  - leaving the client for a short period and then returning to them to re-engage in interaction
- GOING ALONG -
  - providing emotional reassurance to clients without correcting their misperception or delusion
  - Ex: "There's no need to worry; the children are just fine"
- REFRAMING
  - offering explanations for events or situations
  - Ex: "The lady has many problems, and she yells sometimes because she's frustrated"

TREATMENT

- IDENTIFY AND TREAT THE UNDERLYING CAUSE
  - Ex: Vascular dementia: change diet, exercise, control of hypertension or diabetes
- PSYCHOPHARMACOLOGY
  - *Antidepressants:* for depressive symptoms
  - *Antipsychotics:* to manage symptoms of hallucinations, delusion & paranoia
    - Haloperidol (Haldol)
    - Olanzapine (Zyprexia)
    - Risperidone (Risperdal)
    - Quetiapine (Seroquel)
- *Mood stabilizer:* to stabilize affective lability and to diminish aggressive outburst
  - Lithium Carbonate
  - Valproic Acid (Depakote)
  - Carbamazepine (Tegretol)
- CHOLINESTIRASE INHIBITOR (CARE)
  - Slow the progression of dementia
  - Cholinesterase inhibitor also called acetylcholinesterase inhibitors block the normal breakdown of acetylcholine. §
  - Acetylcholine is the main neurotransmitter found in the body and functions in both peripheral and central nervous system
  - **C** - COGNEX (Tacrine)
    - 40-160 mg orally/day divided into 4doses
    - monitor liver enzymes for hepatotoxiceffects
    - monitor for flu-like symptoms
  - **A** - ARICEPT (Donepezil)
    - 5 -10 mg orally/day
    - monitor for nausea, diarrhea and insomnia
    - Test stole periodically for GI bleeding
  - **R** - REMINYL (Galantamine)
    - 16-32 mg orally/day divided into 2 dose
    - Monitor for nausea, vomiting, loss of appetite, dizziness and syncope
  - **E** - EXELON (Rivastigmine)
    - 3 - 12 mg orally/day divided into 2 doses
    - monitor for nausea, vomiting, abdominal pain and loss of appetite

MILD NEUROCOGNITIVE DISORDER

- MILD NEUROCOGNITIVE IMPAIRMENT (MCI) is used to describe deficits that are more severe than are seen with normal aging but are insufficient to warrant a diagnosis of dementia

DIFFERENCE OF MAJOR & MILD NEUROCOGNITIVE DISORDER	
MAJOR NEUROCOGNITIVE DISORDER	MILD NEUROCOGNITIVE IMPAIRMENT
There is significant decline in a cognitive function as assessed by a clinician, reported by significant person, etc.	There is modest cognitive decline in a cognitive function as assessed by a clinician, reported by significant person, etc.
Cognitive deficits interfere with daily activities	Cognitive deficits do not interfere with capacity for independence in daily activities
Cognitive deficits do not occur exclusively in the context of a delirium	Cognitive deficits do not occur exclusively in the context of a delirium
The cognitive deficits are not better explained by another mental disorders	The cognitive deficits are not better explained by another mental disorders

DELIRIUM is characterized by disturbance of consciousness and cognitive abilities that develops rapidly over a short period of time.	**DEMENTIA** is characterized by cognitive deficits primarily memory impairment that develops gradually
iS – sensorium is clouded • Altered level of consciousness (primary sign) • Inability to think clearly and concentrate • Confusion, impaired attention	Sensorium is clear • Forgetfulness (primary sign) • Impairment of attention only in severe stage dementia
R – Reversible usually cause by general medical conditions, medications intoxication or withdrawal, etc	Irreversible/Some reversible. Usually caused by neurologic or other medical conditions
A – Acute onset (rapid onset and short duration) • Duration: days to weeks	Gradual/Progressive. • Duration: years to years
P – Perception & thought process is impaired • **H** – hallucination (V & T) • **I** – Illusion • **D** – Delusion ◦ Prognosis is good	Perception is impaired • **H** – Hallucination (V) • **I** – illusion • **P** – Paranoia (persecutory delusion) ◦ Prognosis is poor
I – Involve young and old • Inappropriate, slow and frequently incoherent speech	• Involve older adult or elderly people • Struggle to find the appropriate word
D – Disorientation to time (date) and place though sometimes variable	• Orientation to person, time and place then deteriorate at the later stage
S – Sundowning – symptoms always almost worse at night	• Sundowning – symptoms worse at night

NURSING DIAGNOSIS AND INTERVENTIONS

DELIRIUM	DEMENTIA
RISK FOR INJURY • Promote client's safety ◦ Teach client to request assistance for activities (getting out of bed, going to the bathroom) ◦ Provide close supervision to ensure safety during performance of ADL ◦ Respond promptly to client's call for assistance	RISK FOR INJURY • Promote client's safety ◦ Offer self and support in performance of ADL and preserve client's dignity ◦ Avoid environmental triggers such as strangers, or changes in daily routine to prevent anxiety and suspicion which may lead to agitation or erratic behavior that compromise safety
DISTURBED SLEEP PATTERN	DISTURBED SLEEP PATTERN
RISK FOR FLUID VOLUME DEFICIT	RISK FOR FLUID VOLUME DEFICIT
RISK FOR IMBALANCED NUTRITION: LESS THAN BODY REQUIREMENT • Promote sleep, proper nutrition, Hydration, elimination, and activities ◦ Monitor sleep pattern. ▪ Discourage daytime napping to help sleep at night ◦ Monitor fluid and food intake. ▪ Provide prompts assistance to eat and drink adequate amounts of food and fluids ◦ Monitor elimination pattern. ▪ Provide periodic assistance to bathroom if client does not make requests ◦ Encourage some exercise during day like sitting, walking in hall, or other activities client can manage	RISK FOR IMBALANCED NUTRITION: LESS THAN BODY REQUIREMENT • Promote adequate sleep, proper nutrition, hydration, elimination and hygiene, and activity ◦ Monitor sleep pattern ▪ Daily physical activity helps client to sleep at night • Monitor food and fluid intake, ◦ Provide assistance to eat and drink adequate amounts of food and fluids. • Monitor elimination pattern ◦ Remind client to urinate ◦ provide pads or diapers as needed ◦ checking and changing pads frequently to avoid infection • Encourage mild physical activities such as walking
ACUTE CONFUSION	INEFFECTIVE ROLE PERFORMANCE
DISTURBED SENSORY PERCEPTION	IMPAIRED SOCIAL INTERACTION
DISTURBED THOUGHT PROCESSES • Manage client's confusion, disturbed thought process and misconceptions ◦ Approach client calmly and speak in a clear low voice and use simple words ◦ Allow adequate time for client to comprehend and respond ◦ Allow client to make decision when able ◦ Provide orienting cues such as calling client by name, placing calendar and clock in the client's room, introducing self when talking ◦ Use supportive touch if appropriate ◦ Reduce environmental stimulation such as noises, tv, radio, visitors, etc. to reduce client's confusion ◦ Provide well lighted environment to minimize environmental misperceptions (illusions)	IMPAIRED VERBAL COMMUNICATION
	IMPAIRED MEMORY • Provide structured environment and routine ◦ Provide familiar surrounding and routine to help eliminate confusion and promote role performance • Promote social interaction ◦ staying socially engaged with friends and family has been shown to boost self-esteem • Provide emotional support ◦ show acceptance, be kind and respectful ◦ convey reassurance by approaching client in a calm and supportive manner– ◦ use supportive touch when appropriate • Promote interaction and involvement ◦ Plan activities according to client's interest and abilities ◦ Reminisce with client about the past ◦ If client is nonverbal, remain alert to nonverbal cues ◦ Employ techniques of distraction, time away, ◦ going along and reframing to calm clients who are agitated, suspicious or confused

OUTCOME IDENTIFICATION	
DELIRIUM	**DEMENTIA**
THE CLIENT WILL BE: ◦ Free of injury. ◦ Demonstrate increased orientation and reality contact. ◦ Maintain an adequate balance of activity and rest. ◦ Maintain adequate nutrition and fluid balance. ◦ Return to his or her optimal level of functioning ◦ Client and caregivers or family must understand health care practices to avoid recurrence.	THE CLIENT WILL BE: • Free of injury. • Maintain an adequate balance of activity and rest. • Maintain adequate nutrition and fluid balance. • Maximize his/her level of functioning