UNIT 5 NURSING MANAGEMENT OF A PATIENT WITH ORGANIC BRAIN DISORDERS

Structure

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5.0 OBJECTIVES

After studying this unit, you should be able to:

- describe common organic brain disorders;
- discuss the etiological factors of organic brain disorders;
- compare the clinical picture of delirium with dementia;
- specify diagnostic criteria for organic brain syndromes;
- describe the various treatment modalities; and
- formulate nursing diagnosis and plan nursing interventions for patients with delirium and dementia.

5.1 INTRODUCTION

Organic brain disorders are also termed as cognitive impairment syndromes where there is disturbance in orientation, memory, intellect, judgement and affect. The disturbance is caused by physiological change in the brain.

5.2 ORGANIC BRAIN DISORDERS

Organic brain disorders, acute or chronic, involve impairment of brain tissue functions due to such factors as head injury, toxic conditions, encephalitis, systemic infection, brain tumor or cerebral arteriosclerosis. The resulting

symptoms include mild to severe impairment of memory, orientation, judgement, general intellectual functions and emotional adjustment.

In DSM III classification this term refers to a "pattern of organic psychological and behaviour symptoms associated with permanent or transient brain disfunction but without reference to etiology."

Types of Organic Mental Disorders

The organic mental disorders are divided into two categories:

- Acute Brain Syndrome – Delirium (F 05)
- Chronic brain Syndrome – Dementia (F 00-F 03)

5.2.1 Delirium

Delirium is the common syndrome nurses come across in general hospital settings. Clouded consciousness is the essential characteristic of delirium. Disturbance in consciousness is marked by cognitive difficulties such as thinking, memory, attention, perception and orientation. It is characterized by progressive disorientation to time and place and is always secondary to some physical or psychological disorders.

Definition: Delirium is a reversible acute confusional state characterized by clouding of consciousness, disorientation, restlessness, excitement and often hallucination.

Common Causes of Delirium: Delirium can be caused by a number of pathophysiological conditions:

— Post operative state

— Drug intoxication and withdrawals

— Alcohol, antianxiety drugs, opioids, CNS stimulants

— Infections

- Systemic: septicemia, toxemia
- Brain infections: Meningitis and encephalitis

— Metabolic disorders

- Hypoxia
- Electrolyte imbalance (acid base imbalance)

— Hypothermia or hyperthermia

— Diabetic acidosis

— Neurological conditions

- Head trauma
- Hypertensive
- Encephalopathy
- Seizures

— Psychological stresseors

- Sleep deprivation
- Sensory deprivation or overload immobilization

Characteristic Features of Delirium

— Clouding of consciousness of varying degrees, associated with disorientation for time, place and person.

— Difficulty in grasping what is happening around them.

— Attention deficit (attention span is very short) the patient is easily distracted by noise, moving objects, shadows which he might be misinterpreting.

— Disorders of perception leading to poor judgement. Visual hallucinations are common.

— Mood variations from mild uneasiness to frank terror and perplexity are observable.

— Sleep is disturbed. Patient may look drowsy during day and to awake as night comes.

Check Your Progress 1

1) Define delirium.

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2) List down any four causes of delirium.

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3) List down any three characteristic features of delirium.

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5.2.2 Dementia

Dementia is a diseases of the brain, usually of a chronic and progressive in nature in which there is disturbance of multiple higher cortical functions including memory, thinking, orientation, comprehension, calculation, learning capacity, language and judgement. Consciousness is not clouded. Dementia produces decline in intellectual functioning. (ICD-10).

Signs and Symptoms

Recent memory suffers more than the remote memory. Disorientation is progressive, involving time first and ultimately affecting all spheres of life, loss of emotional control, behaviour becomes inappropriate, the patient tends to neglect personal hygiene, indecent in behaviour because of loss of inhibition, sooner or

later there is incontinece of bladder and bowels. In dementia, the patient may also develop functional reaction such as anxiety, depression or paranoid delusion.

Causes of Dementia

Dementia is usually caused by the following conditions:

1) Cerebral arteriosclerosis and other cardio-vascular diseases are the commonest causes of dementia.
2) Heredity
3) Hypercholesterolemia, hypertension and diabetes mellitus have been implicated.
4) Degenerative disorders like Alzheimer's disease and Pick's disease.
5) Toxic conditions, such as use of drugs leading to metabolic disturbances.
6) Vitamin deficiency, i.e. BeriBeri, Pellagra, Koraskoff or Wernicke's disease.
7) Carbon-monoxide poisoning may also cause dementia.
8) Neurological disorders like head injury, Huntington's chorea.
9) Age-as is observed after the age of 50-60 yrs. Due to degenerative changes in the brain (Senile dementia).

Symptoms in Dementia

Occurring usually after the age of 65 years due to degenerative brain changes as accompanied by a clinical picture of mental deterioration, which may vary markedly in degree.

Senile Dementia

Simple Deterioration: The patient gradually loses contact with environment, typical symptom of poor memory, tendency to reminiscence (recollection of previous experiences especially those of a pleasant nature) intolerance of change, disorientation, restlessness, insomnia, and failure of judgement. This is the commonest senile psychotic reaction constituting about 50 per cent of the entire group of senile dementia.

Korsakoff (Amnesis) Syndrome

Korsakoff is also spelled as Korskov. This type of dementia develops from a delirium tremen which does not completely recover. A major factor in these cases is thiamine deficiency. Other causes may be head injury, brain tumor, cerebral arteriosclerosis. It is distinguished from delirium because the patient's consciousness is not impaired at all. Intellectual ability is also not impaired which is a primary symptom of dementia. The patient may present confabulation, disorientation and retrograde amnesia. The individual lacks in inititative and judgement.

Brain Syndromes Involved in Presenile Dementia

It resemble that of senile dementia except that disorders occur in a younger age group.

i) ***Alzheimer's Disease:*** Usually the age is early 40 to 50 years. Rapid progression with severe brain and mental deterioration, accompanied by overactivity, emotional distress and agitation. Frequent development of aphasia. Death occurs between two and ten years of sickness, usually an average of four years. The patient should be hospitalised. Treatment is symptomatic.

ii) ***Pick's Disease:*** It is degenerative disorders of the nervous system. Usually occurs in 45 to 50 years of age. Its onset is slow, involving difficulty in thinking, memory defect and easy fatiguability. Character changes with lower ethical inhibitions. The disease runs between two and seven years when death occurs. The patient should be hospitalised. Treatment is symptomatic.

iii) ***Parkinson's Disease*:** Occurs before the age of 30 years. Majority of the cases are reported between 50 to 70 years of age. The disorder is characterized by rigidity and spontaneous tremors of various muscles. Tremors begin on one arm, spread gradually to the same leg and the same side of the body, and then to other limbs. The patient's face is mask-like, speech is not clear. Often the patient leans forward and walks as if he is running. He becomes dependent, develops apathy and becomes a social. Intelligence is a little affected. L. dopa is the drug which brings a lot of improvement in the patient's symptoms.

iv) ***Huntington's Chorea:*** It usually occurs between the ages of 30 and 50 years. It is characterized by a chronic, progressive chorea, there is involuntary, irregular twitching, jerking movements with mental deterioration, leading to dementia and death after 10-21 years of sickness.

Signs and Symptoms

- Loss of memory specifically recent memory which is progressive in nature.
- Disorientation to time, person and place but it begins with disorientation to time.
- Inappropriate behaviour due to loss of emotional control.
- Loss of inhibition leads to indecent behaviour, may also lead to incontinence of bladder and bowel.
- Loss of learning, reasoning; problem solving and poor judgement.
- Likelihood of neglecting personal hygiene.
- Anxiety, depression and paranoid delusions are also observable in dementic clients.
- Tendency for self isolation.

Check Your Progress 2

1) Describe senile dementia.

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2) List down four causes of dementia.

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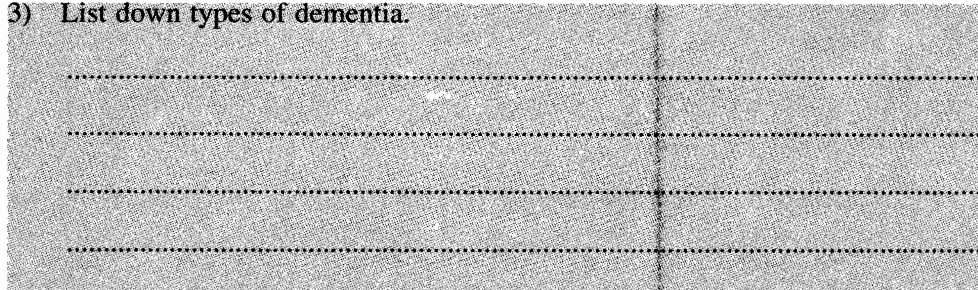
3) List down types of dementia.

5.3 MANAGEMENT

As you studied organic brain disorders is very common. In the following text we will discuss about the medical and nursing management of patient with organic brain disorders.

5.3.1 Medical Management

— The interview and the assessment of judgement, orientation, memory, affect and cognition (JOMAC) are essential.

— Diagnostic tests are used to identify the precipitating causes of organic mental disorders. Following a complete history and physical examination, and electro-encephalogram (EEG), brain scan, skull x-rays, blood chemistry tests, electrocardiogram (ECG), or arteriogram may be ordered.

Small doses of psychotropic or non-psychotropic drugs may be used but could precipitate or exacerbate symptoms, therefore monitor the patient closely, while administering medications.

5.3.2 Nursing Management of Patients with Organic Mental Disorders

Assessment

The client's family is one of the most reliable resources for information about his behaviour, because he may not know himself when the behaviour began.

The nurse assesses and records:

1) Patient's level of consciousness.

2) The attention span of the patient is assessed.

3) Strange or unusual feelings or sensory experiences felt by patient.

4) Orientation of patient to time, place and person.

5) 'Sunset effect' experienced by patient, i.e., decreased orientation of patient as the evening starts.

6) Patient's ability to take care of himself and his personal affairs.

7) Intellectual or cognitive deficits of patient which are assessed by administering mental status questionnaire to the patient.

8) Memory, recent and remote, by asking the patient for the recall of the events of the previous day or weak.

Nursing Diagnosis

1) Alteration in thought processes, related to decreased ability to interpret external stimuli.

2) Potential for violence: self directed related to awareness of mental deterioration.

3) Impaired social interaction, related to inability to employ effective communication.

4) Self care deficit, related to deficit in motor skills.

5) Powerlessness, related to inability to stop the progress of the disorder.

6) Potential for injury, related to lack of memory.

7) Disturbance in self-concept, related to inability to perform family role.

Nursing Management

Maintaining Physical Health

a) Assess patient's response to the drug therapy, side effects of the drugs that the patient is receiving.

b) Assess daily to recognize any symptoms of physical disorders such as cardiovascular and respiratory disorders.

c) Take care of sensory impairments of patient, e.g., well fitting eye glasses for poor vision, hearing aid for diminished hearing.

d) Give loud, slow, uncomplicated instructions while standing in front of the patient regarding performing activities.

Structuring the Environment

a) Move the patient to a quieter area, where environmental stimuli are minimum and hence patient can rest or sleep.

b) Keep 'orientation' clues in the environment, such as clocks, calanders and seasonal pictures, to orient patient to time and place.

c) The number of visitors for the patient should be controlled to provide for optimal stimulation.

d) The people and objects within the patient's environment should be familiar to the patient.

e) Keep environment adequately lighted to reduce 'sundown' effect.

f) Remove harmful objects from the environment of the patient to promote safety.

g) If patient is agitated because of restraints, put on to promote safety, then family member or a nurse can remain with patient to prevent him from injuring himself.

Promoting Socialization

The patient who is severely disoriented, needs help to remind him of who he is, where he is, why he is here and what is expected of him.

Promoting Independent Functioning

a) Help patient to maintain activities of daily living.

b) Make it easy for patient to perform self care activities by making the materials for daily care available, keeping the routine of care simple.

Preserving the Family Unit

a) Family members need respite, as they have the heavy responsibilities of full time care of the patient with organic mental disorder.

b) Day care to the patient can be provided to relieve the family members off the heavy responsibilities.

c) Family therapy may help any family who is experiencing undue stress or having difficulty coping with the demands.

Check Your Progress 3

1) List three common nursing diagnosis in organic brain disorders.

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2) List down main areas of nursing management of patients with organic brain disorders.

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5.4 LET US SUM UP

In this unit you have read what are organic brain disorders, etiological/ predisposing factors leading to acute and chronic states, and than medical as well as management. This information will help you to understand the behavioural changes in people suffering from organic brain disorders and enable you to render care to nursing these individuals.

5.5 KEY WORDS

Delirium : A reversible, acute confusional state characterized by clouding of consciousness, disorientation, restlessness, excitement and often hallucinations.

Delirium tremens : An acute psychotic state usually occurring after prolonged and continuous intake of alcohol.

Dementia : An organic mental syndrome that is often chronic. Onset is usually acute although it may be gradual. Recent memory becomes impaired first; personality change is apparent and brain damage is evident.

Pseudodementia : A disorder resembling dementia that is not due to organic brain disease and can be reserved with treatment.

— Aphasia is difficulty in finding the right word.

— Apraxia is an inability to perform familiar skilled activities.

— Agnosia is difficulty in recognizing well know objects and even people.

— Amnesia is significant memory impairment in the absence of clouded consciousness or other cognitive symptoms.

5.6 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

1) A state of mental confusion characterized by clouding of consciousness, disorientation, restlessness, excitement and often hallucinations.

2) — Drug intoxication and withdrawal

— Brain infections like meningitis and encephalitis

— Head trauma

— Metabolic disorders.

3) — Clouding of consciousness

— Attention deficit

— Disorders of perception

— Disturbed sleep

Check Your Progress 2

1) Senile dementia usually occurs after the age of 65 years due to degenerative brain changes as accompanied by a clinical picture of mental deterioration.

2) — Cerebral arteriosclerosis and other cardiovascular diseases

— Degenerative disorders like Alzheimer's disease and pick's disease.

— Toxic conditions

— Neurological conditions like head injury

3) — Senile dementia

— Korsakoff Syndrome

— Alzheimer's disease

— Pick's disease

Check Your Progress 3

1) — Self care deficit

— Impaired social interaction

— Potential for injury

2) — Maintaining peak physical health of the patient
   — Structuring the environment
   — Promoting socialization
   — Promoting independent functioning
   — Preserving the family unit

5.7 FURTHER READINGS

Johnson, Barbara (1989), *Psychiatric – Mental Health Nursing*, 2nd edn., Philadelphia: J.B. Lippincott Company.

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