Sample of Course Work

Gerontological Nursing

1. What changes occur in the neurological function, endocrine function, and sensation as adult age?

Changes that occur in the neurological function as adult age.

Impairment of the neurological system has a domino effect on other systems, which can affect safety, health and general well-being. Changes in neurological function include decreased visual acuity, double vision, and blindness in the visual field. New headaches that occur in the early morning or interrupt sleep. Sudden deafness, ringing in ears. Mood, personality changes. Altered cognition or level of consciousness. Clumsiness, unsteady gait. Numbness, tingling of extremities, and unusual sensation or pain over the nerve. Other changes are blackouts, twitching, seizures, dizziness, speech disorder, altered sensation, impaired coordination, and reflexes; Parkinson's disease affects the central nervous system to control body movements. Transient ischemic attacks (TIA), temporary neurological events that reduce cerebral circulation. TIAs increase client’s risk of getting a cerebrovascular accident (CVA).

Changes that occur in the endocrine function as adult age.

The thyroid gland atrophies as we age and the thyroid decreases resulting in a lower basal metabolic rate, it reduces the secretion of estrogen, progesterone, androgen, 17-ketosteroids, and glucocorticoids. Insulin secretion is also affected, the insufficient release of insulin in the pancreas and reduce tissue sensitivity to the circulating insulin. Endocrine dysfunction as adult age can lead to diabetes mellitus, hypothyroidism, and hyperthyroidism.

Changes that occur in sensation as adult age.

Aging has a significant effect on the sensory function. One of the most important sensory area affected by age is a vision. Visual limitations affect communication because facial expressions and gestures which are essential, are missed or misinterpreted. Hearing loss (presbycusis) is an age-related sensorineural hearing loss, it is common as adult age and negatively affect communication and social interaction. Other changes in sensation that decrease with age are functioning taste buds that detect sweet and salt flavors, tactile sensation for detecting the difference in temperatures, and loss of olfactory which may affect the ability to taste.

2. Based on these changes, what would you advise clients to be aware of with regard to the risk factors and symptoms to report to their healthcare provider

I would advise clients to report light-headedness, dizziness, headache, drop attack (feeling of being firmly and suddenly pulled to the ground), memory and behavioral changes. Clients describing or demonstrating these symptoms should be taken to their doctor or the hospital immediately for prompt medical evaluation. A stroke can occur without warning and show different signs and symptoms that also need to be reported immediately, depending on the area of the brain affected. Weakness of right and left side of the body or one side, client unable to speak or difficulty speaking, and blindness in half the visual field.

Older adults are at risk for complications from diabetes I would advise the client of the risk for hypoglycemia and signs and symptoms of hypoglycemia such as dizziness, sweating, tremors, and palpations. Hyperglycemia signs and symptoms such as frequent urination, and excessive thirst. I would advise clients to monitor blood sugar as ordered and take prescribed insulin and other hypoglycemic medication as prescribed. Encourage clients to exercise frequently to improve glucose tolerance, decrease body fat, and improve lipid profile. Physical activity improves clients’ response to insulin. People with diabetes are at risk for metabolic syndrome, triglyceride monitoring is recommended. Clients are advised of the risk for peripheral vascular disease, and to report promptly to health care provider, numbness, weak pulse dark discoloration to fingers and toes. Report behavior disorders, convulsions, drowsiness, confusion, disorientation, poor sleep patterns, nocturnal headache, slurred speech, and unconsciousness. If not treated hypoglycemia can cause tachycardia, arrhythmias, myocardial infractions, cardiovascular accident, and death.

Sensory deficits I would advise clients on annual eye examinations, Clients and care givers must report to their health care providers any symptoms that indicate a visual problem such as burning or pain in the eye, blurred or double vision, redness of the conjunctiva, spots moving across the eye, flashes of light, feeling that a coating is over the eye, and suspected eye infection. Clients are advised that arteriosclerosis and diabetes can cause damage to the retina, and nutritional deficiencies and hypertension can result in visual impairment. Opthalmic and audiometric examination is encouraged, in addition to presbycusis and conductive hearing loss, ear and upper respiratory infections, ototoxic drugs, and diabetes can be responsible for diminishing hearing. Tinnitus, a ringing or other sound in the ear, can be associated with age-related hearing loss.

3. What information would you provide clients and caregivers with, to maintain safety and overall health while being aware of the above changes that occur in the neurological, endocrine, and sensory system?

The risk of injury to the head and spinal column is increase with unsafe actions such as failure to wear seatbelts, alcohol and drug abuse and falls. Clients and caregivers are educated on maintaining weight and cholesterol levels within their ideal range, avoiding cigarette smoking, effectively managing stress, driving safely, and controlling infections can prevent some neurological conditions. Assistive devices such as rails in the hallways, grab bars in bathrooms can promote safety and independence.

Obesity and inactivity contribute to the high prevalence of diabetes. Clients and caregivers are educated on signs and symptoms of hypoglycemia and hyperglycemia, the importance of exercise and nutrition, client self- care and blood glucose monitoring, drug therapy and prevention of complications such as foot care, eye examinations, signs of infections and neuropathies.

Due to sensory deficit such as vision and hearing loss put clients are at risk for falls, injury clients are encouraged to wear their glasses and hearing aid for safety. Clients and caregivers are educated on the importance of annual eye examinations to detect visual changes, to obtain corrective lenses if needed, and to detect early problems such as cataract and glaucoma. Clients are made aware of adequate intake of nutrients that promote good vision such as flavonoid, vitamin A, C and E. Clients are encouraged to keep bathroom and hallways well lit, and maintain a clutter-free environment. To protect and preserve clients hearing care should include prompt treatment of ear infection, prevention of trauma to the ear such as a severe blow or foreign object in the ear, and regular audiometric examinations. Avoid the use of cotton-tipped applicators for cerumen removal. Hairpins or similar devices should never be used in the ear.

Clients exposed to loud environmental noise associated with factory or construction work, explosions, loud music or drums are encouraged to protect themselves from hearing loss by using earplugs or another sound-reducing device when exposure is unavoidable.

Clients with hearing loss are advised to request explanations and instructions in writing, so they receive the full content.

Reference

Eliopoulos C. (2015). Gerontological Nursing. (8th ed.).Lippincott Williams & Wilkins.