**TRIBHUVAN UNIVERSITY**

**INSTITUTE OF MEDICINE**

**POKHARA NURSING CAMPUS**

**RAMGHAT-12, POKHARA**



**LESSON PLAN ON**

**AGE RELATED CHANGES IN GASTROINTESTINAL SYSTEM, FECAL INCONTINENCE AND HEMORRHOIDS**

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| **Submitted To** | **Submitted By** |
| Respected Madam | Babita Shah |
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| Lecturer | BNS 2nd Year |
| TU IOM | Pokhara Nursing Campus |
| Pokhara Nursing Campus | 17th Batch |

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| Subject : Geriatric Nursing  Topic : Fecal Incontinence And Hemorrhoids  Unit : 4  Date : 2080/11/  Level of learner student : BNS 1st Year  Time :  Duration : 1 hour  No. of learners : 36  Venue : Pokhara Nursing Campus (BNS 1st Year class room)  Name of supervisor : Respected Madam Shrijana Poudel  Educational methods : Interactive lecture, Discussion  Learning resources : Power-point, whiteboard |

**General Objectives:**

At the end of the classroom session, BNS 1st year students will be able to explain about age related changes in gastrointestinal system, fecal incontinence and hemorrhoids.

**Lesson plan:**

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| **SN** | **Specific objectives** | **Contents** | **Time** | **T/L Method** | **T/L Media** | **Evaluation** |
|  | At the end of this session BNS 1st year students will be able to: | -Greeting  -Attendance  -Introduction   * Self * Topic   -Objectives  -Pre-test | 3mins | Brainstorming | Power point (picture) |  |
| 1) | explain about age related changes in gastrointestinal system | Age related changes in gastrointestinal system |  | Interactive lecture | Power point | What are the age related changes in gastrointestinal system? |
| 2) | define fecal incontinence | Definition of fecal incontinence | 3mins | Interactive lecture | Power point | What is fecal incontinence? |
| 3) | state the types of fecal incontinence | Types of fecal incontinence | 3mins | Interactive lecture | Power point | What are the types of fecal incontinence? |
| 4) | list the causes of fecal incontinence | Causes of fecal incontinence | 3mins | Interactive lecture | Power point | What are the causes of fecal incontinence? |
| 5) | list the signs and symptoms of fecal incontinence | Signs and symptoms of fecal incontinence | 4mins | Interactive lecture | Power point | What are the signs and symptoms of fecal incontinence? |
| 6) | state the diagnostic evaluation of fecal incontinence | Diagnostic evaluation of fecal incontinence | 3mins | Interactive lecture | Power point | State the diagnostic evaluation of fecal incontinence. |
| 7) | explain the medical management of fecal incontinence | Medical management of fecal incontinence | 3mins | Interactive lecture | Power point | What are the medical managements of fecal incontinence? |
| 8) | explain the surgical management of fecal incontinence | Surgical management of fecal incontinence | 3mins | Interactive lecture | Power point | What are the surgical managements of fecal incontinence? |
| 9) | explain the nursing management of fecal incontinence | Nursing management of fecal incontinence | 5mins | Interactive lecture | Power point | What are the nursing managements of fecal incontinence? |
| 10) | state the prevention of fecal incontinence | Prevention of fecal incontinence | 3mins | Interactive lecture | Power point | What are the preventions of fecal incontinence? |
| 11) | list the complication of fecal incontinence | Complication of fecal incontinence | 2mins | Interactive lecture | Power point | What are the complication of fecal incontinence? |
| 12) | define hemorrhoids | Definition of hemorrhoids | 3mins | Interactive lecture | Power point | What is hemorrhoids? |
| 13) | state the types of hemorrhoids | Types of hemorrhoids | 3mins | Interactive lecture | Power point | What are the types of hemorrhoids? |
| 14) | list the causes of hemorrhoids | Causes of hemorrhoids | 4mins | Interactive lecture | Power point | What are the causes of hemorrhoids? |
| 15) | list the signs and symptoms of hemorrhoids | Signs and symptoms of hemorrhoids | 3mins | Interactive lecture | Power point | What are the signs and symptoms of hemorrhoids? |
| 16) | state the diagnostic investigation of hemorrhoids | Diagnostic investigation of hemorrhoids | 3mins | Interactive lecture | Power point | State the diagnostic investigation of hemorrhoids. |
| 17) | explain the management of hemorrhoids | Management of hemorrhoids | 5mins | Interactive lecture | Power point | What are the managements of hemorrhoids? |
| 18) | enlist the prevention of hemorrhoids | Prevention of hemorrhoids | 3mins | Interactive lecture | Power point | What are the preventions of hemorrhoids? |
|  |  | -Summary  -Post-test  -References  -Home assignments  -Next class | 4mins | Questions and Answer |  |  |

**AGE RELATED CHANGES IN GASTROINTESTINAL SYSTEM**

**CHANGES IN MOUTH**

* Decreased saliva production (xerostomia). Dry mouth affects many older adult and may be associated with dysphagia.
* Degeneration of taste buds occurs with advancing age. They may experience a foul taste in mouth because saliva production has decreased and mucus membrane has atrophied.
* The sense of smell and salivary gland secretion diminishes.
* Gag reflex is less efficient, aspiration is a greater likelihood.
* Decrease in strength of muscle of mastication, taste and thirst perception.
* Swallowing becomes difficult, foreign body obstruction may occur.
* The loss of smell or taste may cause an older person to lose interest in food.

**CHANGES IN ESOPHAGUS**

* Decreased esophageal clearance of acid may put the older adult at risk of gastro-esophageal reflux disease (GERD).
* Esophageal diverticulitis occurs due to weakness of smooth muscles of esophagus.
* Decreased esophageal peristalsis lead to discomfort and susceptible to dysphasia and aspiration.

**CHANGES IN INTESTINE**

* Slower peristalsis and impulses predispose to constipation.
* Intolerance to fatty food leads to indigestion.
* Decrease elasticity and dilatation of blood vessels leads to hemorrhoid in elderly.
* Fewer cells on absorbing surface of intestine.
* Liver size decrease after age of 50 but function remain same.
* Decreasing the secretion by intestinal mucosa reduces lubrication.

**CHNAGES IN STOMACH**

* Gastric mobility decreases which leads to delay emptying of stomach.
* With increasing age, there is less gastric juice secretion to aid in digestion.
* Less production of hydrochloric acid, pepsin, lipase and pancreatic enzyme.

**HEALTH MAINTENANCE**

* Encourage to drink adequate water daily to avoid dry mouth and dehydration.
* Maintain dental hygiene and care to prevent periodontal disease and loss of teeth.
* Teach brushing technique, daily flossing and use of tooth paste with fluoride addictive.
* Teach safety factors related to prevention of choking.
* Encourage to take adequate nutrition with vitamin, minerals supplements if necessary.
* Avoid high fat diet and encourage to eat vegetables, fruits and cereals. Encourage for exercise and regular toileting to prevent constipation.
* Avoid polypharmacy because of reduced metabolism and excretion.

**FECAL INCONTINENCE**

**INTRODUCTION**

* Fecal incontinence is defined as an involuntary, unexpected leakage of stool from the rectum.
* It is a common gastrointestinal disorder in patients aged 65 years and older.
* It is results in part from normal aging changes to the bowel. It is an embarrassing and socially incapacitating problem
* Also known as “BOWEL INCONTINNENCE”.

**TYPES OF FECAL INCONTINENCE**

1. **Urge Incontinence**

When a patient has desire to defecate but cannot make it to the toilet, is the loss of fecal matter despite active attempts to avoid defecation.

1. **Passive Incontinence**

Involuntary loss of gas or stool without awareness.

* Fecal Seepage: is the leakage of stool after a normal evacuation, usually presenting as staining of undergarments.

**CAUSES**

**Muscle damage:** Injury to the rings of muscle at the end of the rectum (anal sphincter) may make it difficult to hold stool back properly.

**Nerve damage:** Injury to the nerves that sense stool in the rectum or those that control the anal sphincter can lead to fecal incontinence.

**Constipation:** Chronic constipation may also cause nerve damage that leads to fecal incontinence.

* Diarrhea
* Hemorrhoids
* Loss of storage capacity in the rectum
* Surgery
* Rectal prolapse.
* Rectocele
* Chronic laxative abuse
* Stress
* Age greater than 65 years
* Rectal cancer

**SIGNS AND SYMPTOMS**

* Skin soreness
* Poor control flatus
* Stomach cramps
* Lower back pain
* Itchy and irritated anus
* Foul smelling
* Loss of appetite
* Emotional effect
* Insomnia
* Pain

**DIAGNOSIS**

* History
* Rectal examination
* Stool test
* Other examinations such as:-
* Flexible proctosigmoidoscopy
* Proctography
* Anal Manometry
* Anorectal Ultrasonography
* Electromyography (EMG)

**MEDICAL MANAGEMENT**

1. **Anti- diarrheal drugs** such as loperamide hydrochloride and diphenoxylate and atropine sulfate (lomotil).
2. **Laxatives** such as milk of magnesia that relieve temporary constipation.
3. **Stool softeners that includes** colace and dulcolax that prevent stool impaction, which causes constipation. Also methylcellulose (citrucel) and psyllium (metamucil), if chronic constipation is causing incontinence.

**SURGICAL MANAGEMENT**

Surgery that replaces or repairs sphincter muscles is the most invasive treatment for fecal incontinence. For the elderly, whose muscle tissues around the anal canal have lost their resilience, it can be the only option. They are:-

* Sphincteroplasty
* Surgical correction of rectal prolapse or hemorrhoids
* Colostomy

**NURSING MANAGEMENT**

**DIET**

As with constipation, drinking enough water and eating fruits, vegetables, whole grains that are high in fiber soften stools and prevents diarrhea and constipation that may lead to incontinence.

**HYGIENE**

* Wash area gently with water after each bowel movement.
* Avoid soap it can dry and irritate the skin.
* Keeping skin clean of fecal matter reduces the odors and irritations common to fecal incontinence.
* Skin creams and gels, provide a moisture barrier that prevents direct contact with fecal matter as well as also non-medicated talcum powder may relieve anal discomfort.
* Wear cotton underwear and loose clothing because tight clothing can restrict airflow, making skin problems worse change soiled underwear quickly.

**TOILETING AND BOWEL TRAINING**

* Allowing an appropriate amount of time for toileting that provide elderly assistance in toileting.
* In cognitive, impaired older adults, bowel habit training should be done.
* Bowel movement at a specific time of day. For example after eating.
* Establishing when you need to use toilet can help you again greater control.

**EXERCISE**

Kegels exercises or pelvic floor exercise strengthen the muscle of the anus.

**EDUCATION**

To prevent and maintain fecal incontinence provide education on following that includes:-

* Provide education to avoid straining during evacuation because it can further weaker anal sphincter muscles
* Reduce constipation
* Control diarrhea
* Exercises
* Hygiene
* Diet

**PSYCHOLOGICAL SUPPORT**

* It is important to remember that he or she needs social and emotional support as well.
* Fecal incontinence is a socially and psychologically devastating condition.
* People who have it are often too humiliated and severely embarrassed by it to discuss it openly.
* So, additional emotional and psychological support is needed during this condition

**PREVENTION**

* Avoid all the junk food, fatty, fried and spicy foods.
* Avoid drinks with caffeine like carbonated drinks, coffee peppermint and alcohol.
* Eat small meat at regular interval.
* Avoid eating large meal especially at night.
* Eat regularly and don't miss the meal.
* Eat lots of fruits

**COMPLICATION**

* Emotional distress
* Skin Irritation

**HEMORRHOIDS**

**INTRODUCTION**

* Hemorrhoids are vascular masses or swollen blood vessels in the lower rectum or anus.
* It is also known as Piles.
* In the normal state, they are cushions that help with stool control. They become a disease when swollen or inflamed.
* External hemorrhoids appears outside the external sphincter, whereas internal hemorrhoids appear above the internal sphincter.
* When blood within the hemorrhoids becomes clotted due to obstruction, the hemorrhoids are referred to as thrombosed.
* Hemorrhoids are more common in a person getting older. It is more frequently seen in the elderly who tend to suffer with bowel conditions such as constipation.

**TYPES**

1. **Internal Hemorrhoids**

It lie deep inside the rectum and not visible from outside. They don’t generally hurt because of few pain sensing nerves are present there.

1. **External Hemorrhoids**

It appears outside the external sphincter. And it is more painful because more pain sensing nerves are present.

**CAUSES**

* Straining during bowel movement
* Sitting for long periods of time on the toilet
* Having chronic diarrhea or constipation
* Being obese
* Being pregnant
* Having anal intercourse
* Eating a low- fiber diet
* Regular heavy lifting
* Rectal surgery
* Loss of rectal muscle tone (aging)

**SIGNS AND SYMPTOMS**

* Itching or irritation in anal region
* Pain or discomfort ( External )
* Painless bleeding ( Internal)
* Swelling around the anus
* Fecal leakage
* Painful bowel movement or sensation of incomplete fecal evacuations
* Seen hard lump near the anus
* Mucus discharge

**DIAGNOSIS**

* History Taking
* Physical Examination
* Blood Test (CBC)
* Stool Test
* Proctosigmoidoscopy
* Colonoscopy

**MEDICAL MANAGEMENT**

* Asymptomatic hemorrhoids require no treatment.
* Bowel habits should be regulated with nonirritating stool softeners and high- fiber diet
* Analgesics, warm sitz baths to ease pain and combat swelling.
* Control of itching by improved anal hygiene measures and control moisture.
* Avoid prolonged use of topical anesthetics on hemorrhoids or fissures because they often produce hypersensitive (allergic) perinatal skin rashes with severe itching.
* Manual reduction of external hemorrhoids if prolapsed.
* Cryotherapy involves rapid freezing of hemorrhoids.

**SURGICAL MANAGEMENT**

* Rubber ring ligation is treatment of choice.
* Dilation of the anal canal and lower rectum under general anesthesia. It is not recommended for aging patients with weak sphincters
* Incision and removal of clot from acutely thrombosed hemorrhoid.
* Hemorrhoidectomy

**PREVENTION**

* The best way to prevent hemorrhoids is to keep stools soft, so they pass easily.
* Eat high fiber foods
* Drink plenty of fluids
* Consider fiber supplements
* Don’t strain
* Go as soon as if you feel the urge
* Exercise
* Avoid long periods of sitting

**SUMMARY**

Fecal incontinence is involuntary, unexpected leakage of stool from the rectum which occurs due nerve damage, constipation, stress, and their sign and symptoms are foul smell, skin soreness, itchy skin, loss appetite. Diagnostic investigation: proctography, rectal examination, anal manography. Medical managements: anti diarrheal drug (loperamide, stool softener). Surgical management: colostomy, sphinctoplasty. Prevention: don't eat junk food, don't skip meal, eat food in regular interval.

Hemorrhoids is vascular masses or swollen blood vessels in the lower rectum and anus it has two type one is internal hemorrhoid and next is external hemorrhoids. Causes: being overweight, pregnant, rectal surgery, regularly heavy lifting. Signs and symptoms: itching around anus, painless bleeding, faecal leakage. Diagnostic investigation: physical examination, colonoscopy and stool test. Management sitz bath, hemorroidectomy, rubber ligation.

**Test construction**

1. Fecal incontinence also known as……

2. Hemorrhoids also known as……

**REFERENCE**

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KC, T & Rai, B. (2019) *A Textbook of Geriatric* *Nursing*. (3rd edition). Heritage publisher and distributor.

Pradhan, M,K. & Roka, A,T. (2015). *Gerontological Nursing for BN/BSN Students*.(1st edition). Vidyarthi Prakashan

Subedi, P,S & Subba, K,H. (2019). *A Textbook of* *Geriatric Nursing*. (1st edition). National Book Center.

Timalsina, R. (2077). *Comprehensive Textbook of* *Geriatric Nursing*. (3rd edition). Samiksha publication.

**Home Assignment**

Write the nursing management of fecal incontinence.

**Next Class**

We will discuss about indigestion, diarrhea, constipation and anorexia.