

Lesson Title: Fifty+ Focus on Fiber**Target Audience:**

Describe the specific group you are planning this lesson for. Include pertinent research and statistics on your audience as it relates to the topic you chose.

Nassau county is an uppermost county in Florida, bordering the state of Georgia. The eastern portion of the county lies on the Atlantic Ocean and is the most populated area of Nassau. The county is divided by Interstate 95 (I-95). The portion lying west of I95 is more rural and less populated. The one hospital and three health departments are located east of I-95 in the more populated region of the county. A substantial portion of the population is white (90.4%) with a black or African American population of 6.4% and Hispanic or Latino population of 3.8%. The median age in the county is 44.6 years with the largest adult age population between 55-69 years old. ¹

A large number of Nassau county residents have health insurance coverage (90.4%). Over 43% of adults report to have Medicare coverage. A majority of residents over the age of 50 have had at least one sigmoidoscopy or colonoscopy (76.4%) with 58% reported testing within the past 5 years. The mortality rate of colorectal cancer in Nassau county between 2014 and 2016 mirrors the rate within the state of Florida (13.9 per 100,000). When broken down by race in the same time period, the Nassau county non-white rate of colon cancer (31.9%) was more than twice the rate for Nassau whites (12.6%). Considering the non-white population in Nassau county averages only 10% of the population, the mortality rate by non-white population is considerably high and could benefit from colorectal cancer prevention education intervention. ¹

Colorectal or colon cancer is the third most prevalent cancer in the United States and is the second highest cancer mortality rate in both men and women. ² In most cases, colon cancer starts as a polyp or growth inside the colon. These polyps can be found and removed by colonoscopy. When detected early, colon cancer has a high survival rate. There are numerous risk factors for colon cancer of which some risk factors stem from modifiable health behaviors while others such as age and family history which are outside of one's control. An important modifiable behavior to reduce colon cancer risk is diet. The National Institute of Health recommends a diet high in whole grains and dietary fiber to reduce the risk of colon cancer. ²

This lesson plan will be administered in a YMCA in the town of Callahan which is in the western portion Nassau county and has a higher density of non-white population. Callahan was chosen

due to the low concentration of health practitioners in the vicinity. Callahan is central to the population in western Nassau county making accessibility easier.

General Health Issue Being Addressed: *In one statement, summarize what issue you are addressing and trying to help.*

This lesson is directed at adults over the age of 50 in west Nassau County for the purpose of increasing participants' knowledge of dietary fiber and the protective benefits dietary fiber has on colon cancer prevention.

Ice Breaker Activity: Ask the group to share “What type of food do you keep trying to like but just can’t like it!”

Theory: Discuss what learning theory you will use as a framework for your plan.

State the theory and provide justification for your choice.

What determinants from this theory will be addressed in your lesson plan?

What activities address these determinants?

This learning plan is based on the Health Belief Model (HBM) framework which encourages participants to identify their own health behaviors and formulate their own plan to change those behaviors. The HBM is an effective framework for nutrition education programs because it focuses on a person’s belief system, their understanding of potential health hazards, or disease states and how their own behavior can determine if they believe they will develop a disease or condition. It is truly based on the premise that people try to avoid being sick and if they take action there will be a more positive outcome than not taking action. The core of the HBM to find the personal motivation an individual needs to enact positive health behaviors. In this lesson plan we will touch on all five constructs of the HBM: ³

- Perceived susceptibility: Health statistics focused on Nassau county residents within the same age group as the participants will be theme throughout the lesson plan to reinforce perceived susceptibility
- Perceived benefits: Lesson plan includes information on the benefits of high fiber diet has on colon health
- Perceived barriers: During the discussion portion the audience will be asked what specific reason keeps them from eating a high fiber diet.
- Cues to Action: A handout will be provided to help participants remember the lessons learned during the session and encourage implementing the actions outlined in the handout.

- Self-efficacy: The audience will build their own high fiber snack from the provided ingredients cementing their learning into actions that they can make the changes need to increase their fiber intake

Specific Learning Objectives and the corresponding learning domain: *Write objectives correctly using action words from Bloom's Taxonomy. State which learning domain the objective is dealing with. Use the following form:*

Objective #1: At the end of this session, participants will be able to express one (1) difference between soluble and insoluble dietary fiber. **Learning Domain:** Cognitive domain

Objective #2: At the end of this session, participants will be able to locate dietary fiber on food nutrition labels. **Learning Domain:** Cognitive domain

Objective #3: At the end of this session, participants will create a snack with two (2) high fiber ingredients from the provided "build a snack" ingredient bar. **Learning Domain:** Psychomotor domain, Cognitive domain

Duration: 1 hour

Procedure Outline: *Include activities planned in your outline. Include enough detail about what is being done, discussed or talk about but it is not necessary to write a script. Link each activity with the objective that the activity is designed to meet.*

Introduction:

Fiber is an important part of our diet that does not get enough attention. Most of us don't consider fiber in our food choices. With a few small changes in our daily food choices we can meet the recommended daily allowance of fiber. We are learning that with enough daily fiber we can reduce our risk of colon cancer, like the saying "an apple a day, keeps the doctor away!"

Body:

Slideshow: (15 minutes) Each slide will contain pertinent facts about colon cancer and fiber. Each slide will contain a question posed to the group to elicit their interpretation of the information and personal experiences including their *perceived susceptibility, perceived benefits and perceived barriers*.

Part 1: Statistics of healthcare and colon cancer rates in Nassau county taken from the above justification. Reinforce the *perceived susceptibility* of the audience and self-assess their personal risk of colon cancer.

Part 2: A series of slides to include the following topics

- What is fiber? Define the two types of fiber. (*Objective #1*)
- What is so important about fiber in our diet? Outline the health benefits of both soluble and insoluble fiber – weight management, lower cholesterol, blood sugar management (*Perceived Benefit*)
- How does fiber affect colon health and reduce my chance of colon cancer? Explain how insoluble fiber adds bulk to stool but absorbing liquid and materials in the colon for regular bowel movements (*Perceived Benefit*)
- How much do I need? Review the RDA for adults 51+
- What foods have fiber? All fiber ingredients used in the trail mix activity will be highlighted in the slides
 - Fruits and vegetables – common and uncommon examples
 - Beans and nuts - common and uncommon examples
 - Cereals and Grains with emphasis on whole grains
- Review the food label and explain where fiber is found on it (*Objective #2*)
 - Show examples of different labels of the same product to reinforce the importance of reading labels to choose the item with the highest amount of fiber.
 - Easy rule: 3+ grams of fiber is a good food choice when adding fiber to diet ⁴

Demonstration of Insoluble Fiber (5 min) ⁵

- Take a dry sponge cut in quarters and ask participants to push it down a PVC pipe 1 inch in diameter by 4 inches long – will prove difficult if not impossible
- Wet the same sponge and ask a participant to now push the sponge down the pipe. The sponge will easily pass through the pipe
- Explain to the audience that the sponge is insoluble fiber in your colon, it softens as it picks up fluids and materials while moving easily through the digestive system.
- Emphasize the importance of drinking more water to help the insoluble fiber swell and work more efficiently ⁵

Handouts: (5 minutes) Pass out and review take home handouts

Handout will contain information from MyPlate.gov ⁴ recommendations for adding fiber to daily diet. ⁴ The handout will provide cue to action for the participant to implement the lessons learned in the presentation. (*Cues to Action*) The messages will include:

- When grocery shopping chose whole grain items over others
- Fill half plate with fruits and vegetables.

- Add spinach to everything – sandwiches, eggs, smoothies
- Chose whole fruit over juices
- Eat the skin! There is a lot of fiber in the skin
- Add beans to ground meat dinners such as tacos or even pasta salads
- Add nuts and berries to cereal and yogurt
- Replace breadcrumbs with oatmeal in meatloaf and meatballs.
- Drink more water! ⁴

Demonstration: (15 min) Trail mix demo (*Self-efficacy*)

Participants will be invited to create their own trail mix from a variety of ingredients on the table. They will be asked to choose at least 2 high fiber ingredients in their mix. (*Objective #3*)

A table will be set up in the back of the room with small bowls with spoon containing the following ingredients:

Peanuts, almonds, pumpkin seeds, raisins, dried cranberries, coconut chips, dark chocolate chips, m & m's, granola clusters, cheerios, Chex mix, plain popcorn

Discussion (10 min)

As the group eats their trail mix the presenter will ask if anyone choose a new or different item from the trail mix bar after learning about fiber. If so, then what motivated them to chose the new item? If they did not, what held them back from trying a new item, or choosing a higher fiber food? This will open the discussion on how to implement their knowledge of fiber into their daily food choices at home. The group can also vocalize any barrier they feel will keep them from making high fiber choices in the future (*Perceived Barriers*). The group can discuss how to recognize these barriers and help each other find ways to reduce the barriers. The groups can brainstorm ways to improve their own fiber intake (*Cues to Action*).

Goal setting and review of goals. (10 minutes)

After the discussion on food choices the presenter will prompt the group to explain at least one difference between soluble and insoluble fiber. (*Objective #1*)

The presenter will ask the group how they will choose foods higher in fiber when grocery shopping. The presenter will ask the group to explain where on the food label dietary fiber is and how to compare items to find the highest amount of fiber in the product. (*Objective #2*)

With these objectives accomplished and the group has expanded their knowledge of dietary fiber, the presenter will ask how they can incorporate what they have learned today into their daily routine. The presenter will ask the group if they feel they can make changed in their

diet based on what they learned today and if they feel these changes will help reduce their risk to colon cancer. (*Cues to Action, Self-Efficacy*)

Ask the group to write down one way they will use their knowledge about fiber in the future. If comfortable, the group can read their goals out loud. If not, ask the group to take their papers home and post on their refrigerator as a reminder that they can reduce their risk of colon cancer each day by the choices they make. (*Cues to Action, Self-Efficacy*)

Conclusion (5 minutes)

Thank the group for their participation. Ask if there are additional questions that have not been addressed. Encourage anyone who has feedback about the presentation to share with the group and/or the presenter. Ensure everyone has their handouts, encourage them to post to their refrigerator or somewhere they will see each day as a reminder of what they learned today. Put out a contact number participants can reach you if they have questions in the future. Let the audience know about other learning opportunities in the future and wish them a safe ride home.

Materials Needed List:

- Tables and chairs to accommodate the number of participants registered with enough for 5 extra people
- Table for presenter in front of the room for computer and handout
- Table in the back of the room for trail mix bar
- Computer with PowerPoint software and projector with screen or TV
- Handouts for 50
- Sponge cut into quarters
- PVC pipe 1 inch diameter, 4 inches long
- Small serving bowls 12-15
- teaspoons 12-15
- Napkins 50
- Paper cups 100 (50 for trail mix, 50 for water)
- Water pitcher or dispenser
- Paper tablecloth
- Garbage can with liner
- Towel and cleaning supplies

References:

1. Nassau county community health status assessment 2018 A look at the health and well-being of Nassau county residents. *Florida Department of Health in Nassau County*. 2018:1-69.
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