Group 41 Design Plan

Overview:

The target audience for our self-directed online cannabis science lesson are Registered Dieticians (RDs) who wish to expand their knowledge of medical cannabis. Although our lesson will be available to any interested health care providers, it is tailored for RDs who practice in an outpatient setting with patients experiencing gastrointestinal issues. Our cannabis nutrition lesson provides RDs with principles and knowledge that promotes patient safety when consulting with patients who may benefit from using medical cannabis. RDs will counsel their patients on how to minimize risk and the potential impacts of medical cannabis on their existing gastrointestinal conditions and medication therapy while using the research currently available. Specifically, our self-directed online cannabis nutrition lesson covers the following top five knowledge gaps identified in our survey:

1. What is Medical Cannabis?

2. The difference between CBD and THC.

3. How cannabis works in the body- The Endocannabinoid System

4. Medical Cannabis and its relationship with Nutrition and GI issues

5. Dosing Recommendations

Our self-directed online cannabis nutrition lesson is delivered by an interactive PowerPoint presentation that can be accessed at any time.

Prerequisite: It is not necessary for the participant to have prior knowledge or experience with medical cannabis. Knowledge of general principles of nutrition, pharmacology, and gastrointestinal conditions are required.

Technical Specifications:

Hardware requirements

Any hardware that supports Microsoft Windows, Apple Mac OS, iOS, or Android, and meets the software requirements.

Software requirements

Microsoft PowerPoint

Internet Connectivity

Required.

Learning Objectives:

Terminal objectives:

1. Given the online lesson content, the RD should be able to define medical cannabis, its history, its properties, application methods as well as its legality.

   i. Enabling objective: Explain the history and origins of the cannabis plant, its properties, and most populous components

   ii. Enabling objective: Describe the difference between recreational and medical cannabis and two common usages and application methods.

   iii. Enabling objective: List the states in which medical cannabis is legal both recreational and medical

2. Given the online lesson content, the RD should be able to describe the difference between CBD and THC.

   i. Enabling objective: Explain the chemical structure of CBD and THC.

   ii. Enabling objective: Describe the psychoactive components of CBD vs. THC.

   iii. Enabling objective: List three medicinal benefits and 3 side effects of CBD and THC.

   iv. Enabling objective: Describe how CBD and THC are detected during drug screening.

3. Given the online lesson content, the RD should be able to explain how cannabis works in the body-Endocannabinoid system.

   i. Enabling objective: List the three components of the endocannabinoid system.

   ii. Enabling objective: Explain the location and the functionality of the CB1 and CB2 receptors.

   iii. Enabling objective: List two effects THC and CBD have on the endocannabinoid system.

4. Given the online lesson content, the RD should be able to identify how cannabis can be integrated into the nutritional care of their patient and explain how anti-inflammatory foods can alleviate certain GI issues.

   i. Enabling objective: Explain how various forms of cannabis can be infused in food to create edibles, tinctures and topicals.

   ii. Enabling objective: Explain the ADME-Absorption, Distribution, Metabolism, Excretion process and how it works in the body.

   iii. Enabling objective: Describe how anti-inflammatory food coupled with the anti-inflammatory nature of cannabis can help alleviate the symptoms of specific GI issues.

5. Given the online lesson content, the RD should be able to recommend therapeutic dosing of medical cannabis, potential side effects and drug-drug interactions for patients seeking to treat GI issues.

    i.   Enabling objective: List at least three forms of medical cannabis therapy and potential side effects

    ii. Enabling objective: List at least three signs and symptoms associated with most GI conditions that can be treated with medical cannabis

    iii. Enabling objective: Recommend the most suitable form of medical cannabis therapy and proper dosing.

    iv. Enabling objective: List the traditional medications that should not be taken in combination with medical cannabis and any potential drug-drug interactions.

Lesson Plan

Materials: PowerPoint presentation and slides that include information, diagrams, charts, and pictures.

Equipment: Computer with access to Internet Connectivity (see above).

Time Required: Each module can be completed within a duration of approximately 30 minutes. Total time required approximately 2.5 hours.

End of Module Assessment: The participant will be required to take a two or three question quiz at the end of each module.

Learning Activity Evaluation: At the end of the presentation, the participant will be asked to evaluate the learning activity.

Learning Activity Course Outline:

Module 1: What is Medical Cannabis:

1. Define medical Cannabis, its history, and its properties.
2. Define recreational and medical cannabis and some of its common usages.
3. Describe the variety of injection or application methods usage in cannabis treatments
4. Identify the States in which Cannabis is legal either as recreational or medical
5. Describe the basic level requirements for legally obtaining medical marijuana?

Module 2: The difference between CBD and THC

1. Describe the chemical structure of CBD vs. THC
2. Describe the psychoactive components of CBD vs. THC
3. Describe the legality of CBD vs. THC
4. Identify the medicinal benefits of CBD vs. THC
5. Identify the side effects of CBD vs. THC
6. Describe the detectability of CBD vs. THC in drug testing

Module 3: How Medical Cannabis works in the body-The Endocannabinoid system

1. Describe the endocannabinoid system.
2. Explain the components of the endocannabinoid system.
3. Describe the location and functionality of CB1 and CB2 receptors.
4. Explain the effects cannabis has on the endocannabinoid system.
5. Describe first pass metabolism

Module 4: Medical Cannabis and its relationship with Nutrition and GI issues

1. Review Medical Cannabis and discuss nutrition therapy.
2. Discuss how various forms of cannabis can be infused into food to create edibles, tinctures and topicals.
3. Discuss how cannabis enjoys fat (Lipophilic) and doesn't like water so that healthy oils can be used to create nutritional infused foods.
4. Discuss the meaning of pharmacology and how Absorption, Distribution, Metabolism, Excretion (ADME) works to get cannabinoids throughout the body.
5. Discuss how food with healthy fats (Lipophilic) can accelerate the ADME process.
6. Discuss anti-inflammatory foods and how they can alleviate certain medical conditions.
7. Discuss the inflammatory nature of Gastroesophageal Reflux Disease (GERD), irritable bowel syndrome (IBS) and Crohn's Disease (CD).
8. Discuss how the anti-inflammatory nature of cannabis can help alleviate the negative conditions of Gastroesophageal Reflux Disease (GERD), irritable bowel syndrome (IBS) and Crohn's Disease (CD).

Module 5: Dosing Recommendations

1. Describe different forms of medical cannabis therapy
2. Identify potential side effects of medical cannabis therapy
3. Gain the ability to recommend the most suitable form of medical cannabis therapy
4. Identify intended outcomes for medical cannabis therapy per condition
5. Identify drug interactions and adverse effects
6. Perform analytical testing for results of medical cannabis therapy