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Functional Foods Programs Serve as a Vehicle to Provide Nutrition Education to Groups

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Abstract: An increase in consumer interest in functional foods provides an opportunity for FCS educators to use this topic in Extension programming to promote current nutrition recommendations. The Functional Foods for Life Educational Programs (FFL) are a curriculum of six evidence-based mini-seminars that highlight specific functional foods that have the potential to benefit health. Program participants are introduced to a variety of facts about each food, including research findings and consumption recommendations. FFL has reached a large and varied audience and has generated preliminary positive outcomes. This article explores the FFL model as an option for providing nutrition education to groups.

Introduction

Consumer interest in functional foods has grown over the last decade (IFIC, 2007) as consumption of foods that provide health benefits takes on new importance. Functional foods are defined as those that have the potential to benefit health "when consumed as part of a varied diet" (ADA, 2009). However, sources that consumers use to learn about food and health often "underreport" or "oversimplify" this scientific information without providing the whole story (IFIC & CMPA, 2005). At the same time, consumers are leading increasingly busy lives, with little extra time for attending nutrition and health-related community programs that could provide the rest of the story.

In view of their lack of available time, engaging consumers to attend Extension programming was identified as an area of need in New Jersey. Providing evidence-based, interactive programs about functional foods was considered as a possible way to meet this need. Efforts to provide educational programs about functional foods, with a goal to increase awareness of and influence attitudes and behaviors about them, have proven to be successful in the past (Pelletier, Kundrat, & Hasler, 2002; Killackey-Jones, Lyle, Evers, & Tappe, 2004).

Functional Foods Curriculum

With these points in mind, the Functional Foods for Life Educational Programs (FFL) were developed as a curriculum to provide interactive food-based mini-seminars to community groups with the intention of attracting consumers through a concise, inviting format that delivers accurate scientific information. The overall goal of the curriculum is to increase participants' knowledge and behaviors about specific functional

foods and to promote healthful eating. Objectives of this programming are to:

1. Increase overall interest in nutrition and health;
2. Increase knowledge of the target food;
3. Increase understanding of the research reviewed and health benefits of the target food;
4. Promote behavior change with regard to the target food.

These seminars have been offered in several geographic areas of the state to a variety of audiences with good attendance and preliminary positive results. The project was approved by the Rutgers University Institutional Review Board.

Program Design

The FFL curriculum includes six stand-alone, evidence-based presentations with each offered individually as a mini-seminar. Each mini-seminar combines a 30-40 minute lecture about the functional food followed by an interactive component. A specific functional food or beverage is the focus of each mini-seminar. Designed to highlight whole foods that are derived from plants, each featured food has the potential to benefit health. This provides the educator with an opportunity to review the health benefits of consuming whole plant foods.

The featured foods of FFL are chocolate, tea, mushrooms, coffee, berries, and vegetables. These topics were chosen due to current research available on the foods and their potential to generate attendance. For each food or beverage, an individual program was developed, with each including the following elements about the food: plant origin, history, preparation, health-related research findings, and recommendations, if available, for consumption.

Through this format, the participants are exposed to a variety of facts about the food and, with a review of the research findings, are presented with information to assist them in making informed choices about consuming that food in the future. For example, including chocolate as a topic in this series helps to address the news stories that promote eating of chocolate as a healthful choice. Participants learn that, according to the research, it is cocoa or chocolate with a high-cocoa content *only* that has potential health benefits and that many more studies are needed to determine actual recommendations.

An interactive portion of each seminar, such as a food demonstration or exhibit, is included to enhance the program elements. Tasting is included as an integral part of each activity. For example, participants are provided with the opportunity to see and taste the four different types of tea at the tea program, learn how to prepare mushrooms at the mushroom program, and make a healthful dessert with berries at the berry program. The goal is to provide participants with a hands-on experience with each featured food.

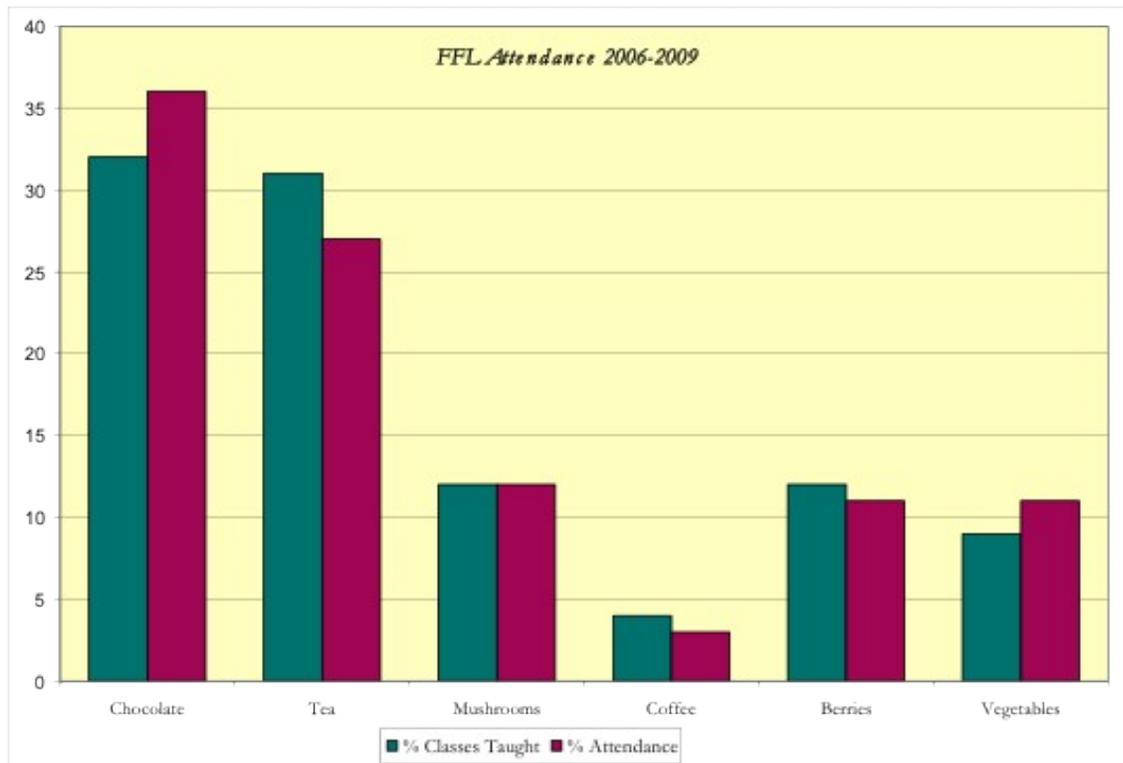
Program Attendance

Using the Cooperative Extension community outreach model, the FFL programs have been able to reach a large and varied audience. Audiences for FFL programs have ranged in age from young to older adults and have included health professionals, educators, and the general public. They have been provided in settings

such as at regional annual conferences for dietitians and educators, women's club meetings, senior nutrition sites, and cancer prevention awareness workshops.

FCS educators throughout the state have taught a total of 77 FFL mini-seminars with an enrollment of close to 2,300 participants to date. Seminars have been offered individually as daytime or evening programs, with each class lasting from 1 1/2 to 2 hours. The top classes offered and attended have been on chocolate and tea. See Figure 1 for a breakdown of attendance.

Figure 1.
Percent Classes Taught and Attendance for Each FFL Topic



Results and Outcomes

Preliminary results for FFL programs are as follows.

On 90-day post evaluations:

- 65% of older adults attending the vegetable seminar (n=56) reported an increase in vegetable intake "based on the information learned";
- 31% attending the berry seminar (n=98) reported an increase in berry consumption, with 35% reporting an increase for health benefits, and 21% for fiber content.

On 6-week post-evaluations:

- 19% of adults attending the chocolate seminar (n=74) reported eating more fruits, vegetables, and plant foods, and 14% reported more interest in nutrition and health;
- 50% attending the tea seminar (n=20) reported drinking more tea from the *camellia sinensis* plant, and 100% reported more interest in nutrition and health.

Summary

Functional foods are a topic for educators to consider when providing nutrition education to groups. These foods can be a vehicle through which to promote health benefits and provide accurate food and nutrition information.

The FFL format provides this type of programming and can be easily adapted to create community interventions about any functional food. The following are steps to create a functional food program.

1. Choose an appropriate food, beverage, or food group;
2. Research the history and important facts about the food;
3. Review current research regarding the food;
4. Determine research-based guidelines or recommendations about the food;
5. Create an evaluation tool regarding expected behavior and knowledge change;
6. Design delivery of the information through a brief lecture and an interactive program.

Using functional foods for nutrition education can promote attendance at Extension programs by highlighting foods of interest and incorporating the information about those foods into current nutrition recommendations.

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