The Situation
Despite universal acceptance of the importance of whole grains in the diet, Americans continue to ignore the whole grain dietary recommendation and eat little or no whole grains.

Whole grain foods are valuable sources of nutrients that are lacking in the American diet, including dietary fiber, B vitamins, vitamin E, selenium, zinc, copper, and magnesium. Whole grain foods also contain phytochemicals, such as phenolic compounds, that play important roles with vitamins and minerals in disease prevention. Intake studies indicate that consumption of whole grains is far less than the recommended intake of 3 servings a day (Journal of American Dietetic Association).

Researchers from the Harvard School of Public Health and Tufts University found eating 3 servings of whole grains a day lowered blood sugar and overall body weight. Results also showed that consuming large amounts of refined grains doubled the risk of developing diabetes and heart disease (American Journal of Clinical Nutrition).

Our Response
A University of Idaho Extension Educator taught a variety of ten workshops to educate clientele on how to identify and use a variety of grains and flour types. Samples of whole grain Artisan bread were provided to help participants begin to develop a taste for more nutrient-dense foods. Each person makes individual choices for their diet. Enjoying the taste of whole grains and whole grain bread is one way to encourage nutritious choices.

Many consider making yeast breads to be time consuming or difficult. Participants learned an easy method to prepare whole grain breads that taste good and will fit into their busy schedules.

A variety of bread classes were offered in which participants made quick breads, yeast bread and Artisan yeast breads. Artisan bread is hand crafted by a person with the ability to mix, ferment, and shape a loaf of bread.

Program Outcomes
More than 230 participants attended all the workshops. In order to get a consistent measure of knowledge gained by participants, 89 people from the Artisan Bread workshops were administered the same survey. Participants in the Artisan Bread workshops gained knowledge about the health benefits of eating whole grains, serving sizes for grains, how to identify a whole grain, the cost of baking from scratch, how to make Artisan breads, and the taste of whole grain breads.

Whole grains improve Idaho family health
The retrospective pre-post survey consisted of five questions related to the program objectives. Participants responded to the questions using a scale of 1-10 (1=no knowledge, 10=extensive knowledge) to express their level of knowledge before and after the class.

Table 1. Retrospective pre-post questionnaire mean values of participants’ knowledge before and after the class.

<table>
<thead>
<tr>
<th>Question</th>
<th>Retrospective Pre mean value</th>
<th>Retrospective Post mean value</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is a whole grain?</td>
<td>4.34</td>
<td>8.36*</td>
</tr>
<tr>
<td>What makes a whole grain?</td>
<td>5.25</td>
<td>8.89*</td>
</tr>
<tr>
<td>What is the cost of making bread from scratch?</td>
<td>4.84</td>
<td>8.97*</td>
</tr>
<tr>
<td>How does one make Artisan bread?</td>
<td>5.10</td>
<td>8.78*</td>
</tr>
<tr>
<td>What does whole grain bread taste like?</td>
<td>7.09</td>
<td>8.93*</td>
</tr>
</tbody>
</table>

*(p-values < 1.0 x 10^-10)

Results indicate there is a need for practical, skill-based education about nutritious eating. Classes were well-attended, and participants reported significant knowledge gained and an increase in bread-making skills.

Anecdotal information from a small number of participants indicated that one family is baking whole wheat bread weekly and has not purchased bread in 3 months. Another used the knowledge gained to prepare quick breads and biscuits from basic ingredients. Others reported they are better able to make informed decisions when selecting whole grain pasta products at the grocery store.

The class exceeded participant learning expectations and they responded as follows:

- “I learned how to bake tasty, healthy bread.”
- “I learned that whole grains are best for good health.”
- “I can make the bread myself for more nutritious bread and to save money.”
- “I know the importance of whole grains vs. refined.”
- “I did learn some basic baking techniques that I will use.”
- “How to make simple do-able whole grain bread. I am excited to make this for the health of my family.”
- “How many different whole grains there are and how many servings I should be getting. I plan on adding more whole grains to my diet.”
- “How to evaluate store-bought products.”

The Future

More classes will be offered to new and past participants to measure mid and long term changes in diet and whole grain consumption. Potential topics include cool fermentation, sour dough, non-gluten breads, use of alternative whole grain flours, and how to shop, plan and cook whole grains in side dishes or main dishes.

References


FOR MORE INFORMATION

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