Improving Patient Knowledge on Exercise and Dietary Recommendations: Quality Improvement in an Outpatient Setting

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Improving Patient Knowledge on Exercise and Dietary Recommendations: Quality Improvement in an Outpatient Setting

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Our mission

Above all else, we are committed to the care and improvement of human life.
Background

Diet and exercise are modifiable factors to prevent heart disease, hypertension, and type 2 diabetes.
Local Problem

There was a noticed lack of patient knowledge and retention of knowledge of recommended dietary and exercise guidelines in our internal medicine clinic, as well as a lack of structured patient education on these topics.
Aim

- Improve the retention of diet and exercise education using an easy-to-read, educational pamphlet on exercise guidelines of 150 minutes of exercise per week and the Mediterranean diet
Intervention
**Figure 1: Front flap and 2 inside panels of handout**

**A Guide for Healthy Living:**

**The Mediterranean Diet**

The Mediterranean Diet is a term for the traditional eating habits of the people in the several different countries bordering the Mediterranean Sea. It focuses on foods in their natural form and through multiple studies has been shown to have health benefits. There is not a singular Mediterranean diet, but there are common factors:

**Benefits:**
- Heart health
- Better blood pressure
- Lower risk of type 2 diabetes
- Allows for variety and creativity in cooking and menu planning

**What do I eat?**

**Plant-based foods:**
- Vegetables of all kinds, but especially leafy green vegetables
- Fruits, legumes, nuts, seeds, whole grains, herbs and spices

**In moderation:**
- Fish, seafood, dairy and poultry

**On occasion:**
- Red meat and sweets are eaten rarely

**What about the healthy fats?**

Olive oil is the main source of added healthy monounsaturated fats in the Mediterranean diet. Olive oil helps lower LDL cholesterol (or "bad" cholesterol) levels. Nuts and seeds also contain healthy monounsaturated fats.

Fatty fish, such as mackerel, herring, sardines, albacore tuna and salmon, are high in healthy polyunsaturated fats called omega-3 fatty acids. These polyunsaturated fats help fight inflammation in the body and help lower the risk of stroke and heart failure.
Figure 2: 3rd inside panel, back flap, and outside back panel of handout

What about chocolate and wine?
- Light to moderate wine intake (1-2 glasses per day) appears to have some benefit
- Occasionally a small amount of dark chocolate is fine

Tips:
- Eat more legumes, whole fruits, and vegetables instead of processed, packaged, or canned foods.
- Eat different foods each week to make this diet work for you and your family. Try new recipes!
- Try buying less red meat, refined grains, desserts, and fast food each month.
- Build meals around vegetables, beans and whole grains.
- Use olive oil instead of butter in preparing food.
- Serve fresh fruit for dessert.
- A glass of wine is 5-ounces, a standard glass of water is 8-ounces.

Exercise Guidelines
- Adults need a mix of physical activity to stay healthy.
- Moderate-intensity aerobic activity: Any activity that gets your heart pounding includes brisk walking.
- Muscle-strengthening activity: Exercises that make your muscles work against resistance include weightlifting.

Tips:
- There are many adult beginner classes for dance, gymnastics, martial arts, boxing, and more. Find what you enjoy!
- Find people you enjoy exercising with. There are hiking, biking, walking, and running groups in most areas.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7663679/
Methods

1. At the front desk, patients are handed a half sheet of paper with 4 questions for patients to rate their self-perceived knowledge of diet, exercise, blood pressure, and blood sugar recommendations before and after their visit as well as an additional yes/no for whether they received a pamphlet on diet and exercise guidelines.

2. The BMI, blood pressure, and pamphlet data is collected from every patient visit. The A1c will be collected when indicated and followed more longitudinally.

3. The patient’s perceived knowledge and if they received the pamphlet data were placed in a locked box upon check out to be later analyzed.

4. The BMI and blood pressure data are followed more longitudinally.

5. The data from each half sheet was entered as de-identified numerical values into a spreadsheet.
**Figure 3: Half-sheet for patient-reported knowledge**

<table>
<thead>
<tr>
<th>BEFORE your appointment</th>
<th>I do not know how they apply to me</th>
<th>I have been given guidance, but I do not know specifics</th>
<th>I have been given guidance and targets</th>
<th>I know my targets AND what to do to achieve them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Pressure Target?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Blood Glucose Target?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nutrition Guidelines?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Exercise Guidelines?</td>
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**Did you receive a written information sheet titled: “A Guide for Healthy Living”?**

Yes  No
Results
This research was supported (in whole or in part) by HCA Healthcare and/or an HCA Healthcare affiliated entity. The views expressed in this publication represent those of the author(s) and do not necessarily represent the official views of HCA Healthcare or any of its affiliated entities.

Patient Reported Receipt of Handout

- Yes: 16.1%
- Unanswered: 46.1%
- No: 37.8%

Figure 4: Pie-chart of responses to patient-reported responses to whether or not they received the handout
Change in patient-reported diet and exercise knowledge averaged for per visit

0.90 points - Patients who endorsed receiving the handout
0.52 points - Patients who denied receiving the handout
0.51 points - Patients who did not answer whether or not they received the handout
Conclusions
Questions?