Health Promotion Practicum
a Pilot Study
MSUCOM
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Some Facts

- Diet and exercise are *two modifiable health behaviors* with potential to prevent substantial disease morbidity and mortality.\(^1\) \textit{Am J Prev} 2004

- Physicians with better personal health habits are more likely to provide preventive counseling.\(^2\) \textit{Obesity} 2012

- Physicians have the opportunity to help patients adopt healthier diet and exercise patterns *but do not routinely do so.*\(^2\) \textit{Obesity} 2012
Some Facts

- Barriers to providing nutrition counseling by physicians include: 3 BMC Fam Prac 2006
  - lack of training in health counseling skills
  - low self-efficacy in personal health habits.
Methods
Survey sent to students at 3 time points
N = 2316 medical students from 16 medical schools

Prevention Relevance
• primary care
• female
• Non-white
• Personal health practices

Counseling Frequency
• primary care
• female
• Non-white
• schools that encouraged personal health practices.
My Experience
“I am less interested in prevention than treatment.”

– 2499/4522 of responses were in the Disagree/Strongly Disagree

Counseling Relevance: Highest quartile score

– 1080/4522 data points

Counseling Frequency results

– 218/1361 data points
## Changing Behavior

### Prochaska’s Stages of Change*

<table>
<thead>
<tr>
<th>STAGE</th>
<th>ATTITUDE</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation</td>
<td>Never</td>
<td>50-60%</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Someday</td>
<td>20-40%</td>
</tr>
<tr>
<td>Preparation</td>
<td>Soon</td>
<td>10-15%</td>
</tr>
<tr>
<td>Action</td>
<td>Now</td>
<td>5-10%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Forever</td>
<td></td>
</tr>
</tbody>
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*Am Psych 1992;47(9):1102-14
Study observations and my experience

While a little over half of medical students say that they have some interest in prevention along with treatment.

When it comes to preventive counseling:

~23% of students indicated higher scores relevance.

~17% of students engaged in some preventive counseling their senior year.
Why did we design this Pilot Study?

To promote healthful behaviors for:
- Our future physician workforce
- Future patients

HOW?

Provide the opportunity to apply healthy living skills individually in a weekly workshop setting.
The Purpose of the HP²

• Is to improve the student’s confidence in:
  – Addressing their own health habits with motivational and behavioral skills learned each week as measured by diet and exercise patterns.
  – Addressing patients’ diet and exercise patterns through the application of skills learned from this practicum.

Approved by MSU Institutional Review Board; Dec. 2012 #i-042364
HP2
Program Specifics

• Eight-week participation in Weight Watchers At Work with an individualized nutrition plan

• Weekly on-campus meeting, weigh in, and lesson.

• Attend one community-based meeting at a Weight Watchers location to observe and participate.

• Pre- and post-program assessment to determine changes in self-efficacy in healthy behaviors.
Why Weight Watchers?

- Scientifically sound nutrition and exercise program based on current guidelines.\(^3\)\(^-\)\(^7\)

- Weekly topics designed for laypeople but grounded in reputable behavior change techniques.

- All WW meeting staff and leaders are WW lifetime members must maintain goal weight for continued employment.

- Students have the opportunity to see the program application of healthful behaviors in the community setting.
HP2
Schedule of Events

• The 8-Week program was conducted Jan thru Feb 2013 & 2014.
• Thursday evening 5-6pm
  – 5-5:30 weigh in and material distribution
  – 5:30-6 Topic presentation and discussion
HP2 Pilot Study

Student Results

- Group characteristics of the 37 Students enrolled:
  - 40% (15) had prior coursework in nutrition
  - 46% (17) reported firsthand history of self or family members with a medical condition requiring attention to nutrition (diabetes, CVD, etc)

- All participants took a pre & post program survey
  - 12 questions related to nutrition attitudes
  - 8 question set related to self-efficacy in nutrition and in exercise.

- Behavior Change Survey added in 2014
HP2 Student Survey Results

Attitudes toward Nutrition Therapy

BEFORE

• The students agreed that nutrition is important in prevention of disease and essential component of comprehensive health care management.

AFTER

• Following the 8 week course students indicated stronger agreement that “Nutrition counseling is not a waste of time because patients can change their dietary habits.”
HP2 Student Survey Results

Exercise Self-Efficacy

BEFORE

• The students felt more positive about their physical activity self-efficacy than they did about their nutrition self-efficacy.

AFTER

• Increased confidence in their ability to engage in physical activity despite availability and scheduling conflicts.
HP2 Student Survey Results

Nutrition Self-Efficacy Scale

BEFORE

• Students were neutral toward their own personal abilities to develop and maintain a healthier diet.

AFTER

• Nutrition self-efficacy improved in nutrition knowledge and diet planning skills.
HP2 Student Survey Results

Nutrition Self-Efficacy Scale

“When stressed, tired and busy”

BEFORE

• Students were neutral to negative toward their own personal abilities to develop and maintain a healthier diet under these conditions.

AFTER

• *Increased confidence (by a factor of 0.9) in their ability to plan healthy food choices despite stress, fatigue and scheduling conflicts.*
HP2 Behavior Change Plan
Assignment 2014

Student’s instructions

1. Identify a specific health behavior to target
   • Food intake, exercise, sleep, etc
2. Set a goal for that behavior
3. Self-monitor and record behavior for 6 weeks
4. Complete post-assignment survey
HP2 Behavior Change Survey Results 2014

- Activity (4), nutrition (7), sleep (1), and behavior maintenance (2) goals were selected.

<table>
<thead>
<tr>
<th>Perceived Successes</th>
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<tbody>
<tr>
<td>1-25%</td>
</tr>
<tr>
<td>51-75%</td>
</tr>
<tr>
<td>76-99%</td>
</tr>
<tr>
<td>100%</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>5</td>
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<td>6</td>
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</table>

9 Acad Med 2011
# HP2 vs. Kushner et al 2011

<table>
<thead>
<tr>
<th>Participation and Reporting</th>
<th>HP2 study MSUCOM</th>
<th>NU Feinberg School of Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCP goals in exercise, nutrition, or sleep</td>
<td>85.7%</td>
<td>87.2%</td>
</tr>
<tr>
<td>Goals not met</td>
<td>7.1%</td>
<td>49.6%</td>
</tr>
<tr>
<td>Goals partially met</td>
<td>50%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Goals completely met</td>
<td>42.9%</td>
<td>40.5%</td>
</tr>
<tr>
<td>Healthier after BCP project</td>
<td>92.8%</td>
<td>79.9%</td>
</tr>
<tr>
<td>BCP was valuable</td>
<td>100%</td>
<td>-</td>
</tr>
<tr>
<td>Would use BCP again</td>
<td>100%</td>
<td>81.9%</td>
</tr>
</tbody>
</table>

9 Acad Med 2011
## HP2 vs. Kushner et al 2011

<table>
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<th>Attitudes toward BCP</th>
<th>HP2 study MSUCOM</th>
<th>NU Feinberg School of Medicine</th>
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</thead>
<tbody>
<tr>
<td>Recording my behavior was valuable</td>
<td>4.0</td>
<td>4.16</td>
</tr>
<tr>
<td>Monitoring my behavior was valuable</td>
<td>4.4</td>
<td>4.3</td>
</tr>
<tr>
<td>Monitoring my behavior clarified goals</td>
<td>4.5</td>
<td>3.86</td>
</tr>
<tr>
<td>Monitoring my behavior was difficult</td>
<td>3.21</td>
<td>3.15</td>
</tr>
<tr>
<td>Monitoring my behavior was time consuming</td>
<td>3.1</td>
<td>2.56</td>
</tr>
<tr>
<td>I learned how to be healthier from the BCP</td>
<td>4.6</td>
<td>3.79</td>
</tr>
<tr>
<td>The BCP was fun and enjoyable</td>
<td>4.43</td>
<td>3.54</td>
</tr>
</tbody>
</table>
HP2 Behavior Change Plan
Student Feedback

“I know that I have the ability to achieve a behavioral change to enhance the health of my body with the right tools.”

“Making healthy choices is a lifestyle change, not just a diet.”

“The concept of food portions ‘rationing’, although obvious, became very apparent in rationing time for studying as well… I feel that this practicum has helped me to be a more effective student.”
What students said about the HP2 Weekly sessions...

- **Nutrition Information**
  - Surprised at how much nutrition they learned
  - Liked the tips and quick recipes

- **Food Awareness**
  - Able to eat more quality foods and keep healthy weight
  - Felt better eating healthy foods in contrast to comfort foods

- **Health Habits**
  - New behavior strategies
  - Useful suggestions for counseling with future patients
What students said about the Community WW meetings…

• Group Demographics
  o Mix of ages

• Meeting Atmosphere
  o Group support
  o humor

• WW Member’s Stories
100% Recommend participation in future HP2 programs!
Our Recommendations

• Provide to all students the basic nutrition and exercise guidelines as well as behavior change theory in the pre-clerkship coursework.

• Literature support for having some type of health promotion program for medical students because it does improve the likelihood they will engage in health counseling practice with patients.

• Acknowledge that stages of change theory applies to medical students as well… so allow for self-selection in your health promotion programs
References


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