Fruits and Vegetables Aren’t Nutritious Until Somebody Eats Them

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Today’s Outline

- *Project WebHealth* study (Suzanne)
- Some key nutrition tips (Susan)
- *F&V Connections* mail/phone intervention (Susan)
- *F&V Express Bites* Internet project (Susan)
- Q/A (Suzanne and Susan)
Welcome to Project WebHealth!

- 8-state, web-based study in college students
- Objective is to determine whether an online nutrition/fitness course prevents weight gain and improves diet & fitness.
- Focus Groups conducted last year and this Fall
- Pilot study started this Spring, ends in May
- Main study starts next Fall (2007)
How do we find out what people are thinking in terms of food-related issues?

We ask them!

Focus Groups:
- informal gathering of 8-10 people
- questions posed to the group about a specific topic
- several focus groups conducted to get enough responses
- ‘themes’ identified from analysis of responses
Focus Group Q: *What do you like about eating?*

1. Taste

2. Comfort associated with certain foods, way to relieve stress.  
   “If I’ve had a bad day, the easiest way to feel better is to eat something fattening.”

3. Health benefits, satisfies hunger, provides energy.  
   “I find you feel better when you are eating right.”

4. Social aspects  
   “Food is great…it brings people together.”
Next Question

What, if anything, stresses you about food?
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1. Monitoring consumption (females).
   “I wish I didn’t have to worry so much about calories, I watch what I eat – and I really feel like I should be much slimmer than I am, because I work out so much, and really watch what I eat ALL the time.”
   “The nutritional value about everything I eat stresses me out.”

2. Cost, especially of healthy foods.

3. Negative things about tasty food.
   “I feel like everything that tastes good has a ridiculous amount of calories.”
   “What tastes good is usually horrible for you.”
   “Finding food that is healthy, filling and tasty is hard.”
Last Question

What do you wish you had known about eating on your own when you started college?
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1. **Availability of foods on campus.**
   - Too much fast food.
   - Lack of healthy foods, especially in dining halls.
   - Freedom and temptation to eat too much because of the abundance of ‘unhealthy’ foods at the dining halls. ['I wish they didn’t have bad choices at all in the dining hall’].

2. **Dining hall schedule.**
   - Eating when not hungry to ‘store up’ before the dining hall closed. ['Eating according to dining hall schedule is hard.’]
What do you wish you had known about eating on your own when you started college?

3. Lack of access to grocery stores.

4. Nutrition
   Desire to know more about nutrition and how to eat better.

5. Controlling eating
   “Dining halls make it so easy to eat seconds and thirds because there is so much food available.”
   “It’s hard to stay away from desserts. I wish they wouldn’t have them in the cafeterias.”
What do you wish you had known about eating on your own when you started college?

6. Cost

“It’s expensive to eat healthy. Eating junk food is so much cheaper.”

7. Time to cook

“How much effort cooking food is…meatloaf darn well doesn’t make itself.”

8. Already knowledgeable about eating

Some students felt they knew a lot before starting college, that they had learned about healthy eating from their parents.
Welcome to Project WebHealth!

- Main study starting next Fall (2007)
- Freshman, sophomores and juniors are invited!
- Objective is to determine whether an online nutrition/fitness course prevents weight gain and improves diet & fitness.
- If interested, visit Nutritional Sciences website at the end of the summer or during first week of classes next Fall.
  www.nutrisci.wisc.edu
F&V Connection
and
F&V Express Bites
What’s on your plate these days?
What’s in your cup/glass/can/bottle/mug??
Did you know?

Sweetened beverages (non-diet sodas) are top contributors of added sugars in the American diet (33%)
Two factors to consider

- High energy density
- Large portion sizes

Source: Kral TV, Roe LS, Rolls BJ. *Am J Clin Nutr* 2004;79:962-8
Before we leave this topic...

- Turn to the person(s) next to you and decide **one thing you could do to make better food/beverage choices for the next week.**
- 2-3 minutes
30 seconds left
Was Eating More Fruits and Vegetables on Your List?

- **TIPS:**
- Fresh is great, but not the only good choice, especially this time of year
- Expensive (e.g. pomegranate) is not always better
Was Eating More Fruits and Vegetables On Your List?

- Fresh is great, but not the only good choice, especially this time of year
- Expensive (e.g. pomegranate) is not always better
- 5 cups a day is better than 4
- 4 cups a day is better than 3
- 3 cups a day is better than 2
- 2 cups a day is better than 1 and...
Was Eating More Fruits and Vegetables On Your List?

- Fresh is great, but not the only good choice.
- 5 cups a day is better than 4
- 4 cups a day is better than 3
- 3 cups a day is better than 2
- 2 cups a day are better than 1

- 1 cup a day is WAY BETTER than none!
F&V Connection and F&V Express Bites Materials and Methods Were Based on the Transtheoretical Model

- Stages of change
  - Contemplation
  - Preparation
  - Action
  - Maintenance
  - Precontemplation

- Self efficacy

- Decisional balance

- Processes of change
Focus Group Findings from F&V Connections Research
(reported by respondents in five stages of change)
PRECONTEMPLATION

- This week I don’t even have time to shave — you expect me to eat fruits and vegetables?
- I have eaten the same stuff all my life, why should I change?
CONTEMPLATION

- I probably should start eating fruits and vegetables so my kids will. They copy their parents.
- I used to eat vegetables and fruits, but not all the time. I think I should eat more every day.
PREPARATION

- I’ve always known I need to eat better anyway. I just need some tips and a place to start.
- It’s easy if you just put your mind to it. I’m going to try to set a goal for myself to eat more fruits and vegetables.
When I’m putting stuff together on a plate, I say, OK, I have to get all the food groups so I better grab a veggie.

I like to set a good example for my daughter.
MAINTENANCE

- I’ve been a fruit and vegetable person all my life. My mom got me into it.
- I like fruits and vegetables, but I guess I also want to eat them because it makes me feel better knowing I’m eating something healthy.
**F&V Connection Study**

- **Aim:** increase f&v intake among low income 18-24 year olds (n=1200+)

- **Intervention:**
  - Stage-based magazine
  - 4X2 Monthly newsletters
  - 2 Individualized reports
  - 2 Educational phone calls
F&V Connection study results:

- Stage-tailored materials were successful mediators of dietary behavior change and resulted in significant progress in SOC among the treatment as compared to the control subjects.

- Treatment subjects ate about 2.4 more servings of fruits and vegetables (mostly fruit) per week than controls, 6 months after the end of the 6-month intervention.
**F&V Express Bites Website**

- Adapted from the print-based materials.
- Goal: create a user-personalized, stage-tailored learning experience.
- Evaluated (n=13) and pilot-tested (n=7).
- Home page → Start with F or V
- A 2-step algorithm identifies readiness to meet recommendations for fruits and vegetables.
- Computer selects messages based on readiness.
Website Development

Stage-Tailored sub-modules include:

- Educational messages
- Individualized feedback
- Interactive quizzes
- Tips/techniques for success
- Video vignettes
- Recipes
Research Methods

- Design: Randomized, Treatment-control with Pre- and post-test assessments of TTM constructs.
- Multi-state: participants from WI, NE, ME, SD.
- Control = Non-tailored website with general nutrition messages adapted from a 5 A Day pamphlet.
Assessments

- **Baseline**
- **Post-test**
- **Follow up**: 30-60 days post viewing
- **Final N = 96** (half controls)
Differences at Follow Up

- No differences at baseline for F or V
- The treatment group made significant progress in SOC for vegetable intake (McNemar $\chi^2 = 0.039$)
- Control group increases were not significant ($\chi^2 = 0.267$).
Similar progress to higher stages of change was observed for treatment and control groups for fruit.
Advances in self-efficacy were sustained 30-60 days later for vegetables (treatment and controls) but not fruit.
Differences at Follow Up

Decisional Balance:

- **F&V Pro** scores increased from baseline to post-test for both groups.
- Increases were not sustained 30-60 days later.
- **Veg Con** scores were significantly lower than baseline scores for the treatment, but not control group.
- **Fruit Con** scores were significantly lower for both groups.
83% of intervention group respondents would recommend the site to others.

82% intend to try the tips/techniques discussed in the modules.

69% reported increased motivation to eat more fruit and 76% to eat more vegetables.

87% either agreed or strongly agreed with the statement, “I have improved my attitude about fruit and vegetable consumption.”

83% rated the website content as new to them.
1. Intervention materials were theory-based.
2. Content and approach adapted from a successful large-scale study.
3. Assessment scales had been tested for reliability and validated for use with young adults.
4. Website evaluated and pilot tested.
5. Low attrition.
6. Web format provides additional strengths.
Study Limitations

1. Self-selected study population.
2. All measures self-reported.
3. Follow up measures assessed only short-term changes (1-2 mo.)
An interactive, stage-tailored program can produce significantly positive shifts in dietary stages of change.

Stage-tailored information can have significant impacts, particularly for those in the pre-action stages.
Discussion/Conclusions

- Receiving web-based nutrition information that is either stage or non-stage tailored can significantly affect the psychosocial mediators of behavior change.

- A web-based program is an acceptable format for nutrition education for the young adult audience.
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Welcome to the F&V Express Bites Web Site!

Eating the right foods is one of the most important things we can do for our bodies. This web site is designed specifically for young adults who may want to change their eating habits. The eating habit we are going to focus on is eating at least 5 cups of fruits and vegetables each day for women and 6 cups for men, assuming a moderate level of activity.

You don't have to be ready to make a change to enjoy this web site. Take a look, you may find that changing your eating habits is faster and easier than you thought.

Go ahead and click on the Getting Started link.

Web site:  www.nutrisci.wisc.edu/fav
Questions?