

## Behavioral Obesity Treatment: Today's State of the Art

Satellite Conference  
Tuesday, February 22, 2005  
12:00-1:30 p.m. (Central Time)

Produced by the Alabama Department of Public Health  
Video Communications Division

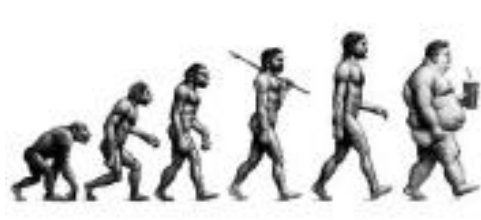
## Faculty

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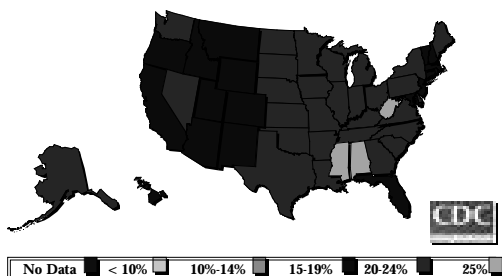
## Objectives

- To review empirical data on health outcomes of effective behavioral weight control programs.
- To identify components of effective behavioral weight control programs.
- To provide details on implementation of behavioral weight control strategies.

## Obesity Our Destiny?



## Obesity Prevalence in U.S. 2002



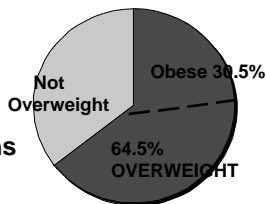
## Obesity and Overweight Defined

- Body Mass Index
  - $Wt [kg] / ht [m]^2$
  - Indicator of total body fat
- Overweight
  - $BMI \geq 25$
- Obesity
  - $BMI \geq 30$
  - Severe obesity  $BMI \geq 40$

## Overweight and Obesity Rates

- 64.5% of Americans Overweight (BMI  $\geq$  25) in 1999 - 2000

- 30.5% of Americans Obese (BMI  $\geq$  30) in 1999 - 2000



## Obesity Related Co-Morbidities

- Type 2 Diabetes
- Hypertension
- Dyslipidemias
- Heart Disease
- Stroke
- Gallbladder Disease
- Osteoarthritis
- Cancer
- Death

“Fair to good evidence that high-intensity counseling—about diet, exercise, or both—together with behavioral interventions aimed at skill development, motivation, and support strategies produces modest, sustained weight loss (typically 3-5 kg for 1 year or more) in adults who are obese.”

U.S. Preventive Services Task Force (USPSTF) 2003

## USPSTF Conclusions

- No direct evidence behavioral interventions reduce mortality or morbidity from obesity.
  - NIH-funded Look AHEAD trial
- Strong evidence of improvements in intermediate outcomes providing indirect evidence of health benefits.
  - Improved glucose metabolism, lipid levels, and blood pressure
- Recommend offering intensive counseling and behavioral interventions to promote sustained weight loss for obese adults.

## Impact of Weight Loss

- Significant improvements in wide range of health parameters with modest weight loss
- Losses of 5 – 10% produce significant improvements
- Achieving BMI of 25 or lower not required for improved health

## Diabetes Prevention Program (DPP)

- 3-group randomized trial
  - Lifestyle
  - Metformin
  - Placebo
- 27 sites

### **Diabetes Prevention Program (DPP)**

- Diverse population (N=3,234)
  - 45% minority
  - 32% male
- Examined prevention or delay of type 2 diabetes among overweight individuals with impaired glucose tolerance elevated glucose levels (IGT)

### **The DPP Core Curriculum**

- 16 individual sessions over 24 weeks
- Training and education in diet and exercise habit change and behavior modification skills
- Emphasis on:
  - Self monitoring techniques
  - Problem solving
  - Individualizing programs
  - Self esteem, empowerment, and social support
  - Frequent contact

### **State of the Art Behavioral Treatments**

- DPP provides a model
- Look AHEAD trial has based intervention materials on the DPP model
- Most state of the art programs use these components
- DPP lesson materials available to public at website
  - <http://www.bsc.gwu.edu/dpp/index.html>

### **Behavioral Obesity Treatments**

- Typical weight losses
- Length of intervention
- Program components
- Dietary regimen
- Exercise

### **Typical Weight Losses**

- 5 – 10 kg during weight loss induction
- 8 – 10% initial body weight
- 66% of losses maintained at 1 year

### **Program Length**

- Longer programs produce greater weight losses
- State of the art weight loss programs are 4 to 6 months
- Followed by weight maintenance program
- Group administration may be most effective

## Key Behavioral Components

- Self Monitoring
- Problem Solving
- Goal Setting
- Maintenance

## Self Monitoring Is a Cornerstone

- Self Monitoring
  - Dietary Intake
  - Physical Activity



## Monitoring Associated with Greater Weight Losses

- Self monitoring consistently predicts better weight loss outcomes
- Cornerstone of behavioral programs
- Single most effective component
- Focuses attention on the behaviors
  - Identify antecedents and consequences
  - Objective data
  - Reactive

## Methods of Self Monitoring

- Paper and pencil diary
- Palm pilot
- Computer or web-based tools
- Low literacy versions
  - Check off
  - Pictures
  - Shuffling cards

## Problem Solving

- Steps of problem solving
- Identify barrier or high risk situation
- Outline a plan to deal with the situation
- Implement plan
- Evaluate plan

## Problem Solving

- Steps
  - Orientation
  - Problem definition
  - Brainstorming
  - Selection of plan
  - Implementation and evaluation
- Addition of problem solving produces better sustained weight loss

### **Step 1: Problem Definition**

“I’ve really been trying to bring my lunch to work so that I don’t get fast food every day and end up eating the french fries and the cheeseburger. The only place to get food quickly at lunch time is the burger joint. But my kids are always running late in the morning and I never seem to have time for myself to make a lunch.”

#### **Problem Definition:**

- Making lunch to take to work
- Eating fast food
- Time for self to engage in healthy behaviors

### **Step 2: Brainstorming**

- Make lunch the night before
- Opt for a “pre-made” lunch like a lean cuisine
- Skip lunch all together
- Select more healthy options at fast food restaurant
- Work with kids to get them out the door in the morning with less hassle

### **Step 3: Selection of Plan**

- Review options
- Select the one most likely to be successful AND most likely to be implemented by individual
- Might end up combining some of the options identified in brainstorming

**PLAN:** Make lunch the night before and use “pre-made” lunch options

### **Step 4: Implementation and Evaluation**

- Have individual identify when and how will implement plan
  - Be sure to address getting ready for plan (e.g., shop for frozen meal entrees)
  - Be concrete on when will try it out
  - (e.g., on Tuesday and Thursday next week)

### **Step 4: Implementation and Evaluation**

- Formally evaluate if it worked as hoped
- If not, loop back to the brainstorming step, factoring in the new information learned, and go through process again

### **Keys to Successful Problem Solving**

- Individual identifies problems most pressing to them
- Individual generates possible solutions AND selects the one most likely to be successful for him/her
- You can suggest things that have worked for others that might / might not work for them
- Always looking to provide a menu of options rather than a single strategy

## Goal Setting

- Proximal goals
  - Realistic
  - Objective and measurable
  - Specific and detailed
- Long term goals
- Goal needs to be one that is important to an individual and likely to be successful



## Realistic Goals

- Achievable = more likely to be sustained
- Both patients and providers can sometimes be overly optimistic about what can be achieved
- The dangers of overly optimistic goals are failure to achieve the goal, frustration, followed by abandoning the efforts



## Objective and Measurable

- Goal should be measurable or concrete
- Allows patient (and you!) to monitor and track progress
- Allows you (and the patient) to recognize when problem solving is needed
- If too vague and abstract, hard to know if progress is being made – and when a different approach is needed

## Measurable Or Not?

- “I’m going to do better” NO
- “I’m going to start to eat 5 servings of fruit and veggies each day” YES
- “I’ll cut down on my smoking” NO
- “I’m going to stop smoking in the house” YES
- “I’m going to use a pill reminder box for my blood pressure and diabetes medications” YES
- “I’ll start to take my medications more regularly” NO

## Specific and Detailed

- A detailed description of the plan should be included in the goal.
- Could another person read the goal and carry it out?
- Want to help patient think about the intermediate steps leading up to the long term goal.
- If folks have envisioned and planned out the steps, they are more likely to follow through.

## Specific and Detailed

- I’m going to lose weight
  - I’m going to start eating low calorie and low fat
  - I’m going to start bringing a low calorie, healthy snack and lunch to work
  - I’m going to bring low calorie, healthy snacks to work on Monday morning and pack a low cal lunch every night to take to work the next day
- Less Detailed
- ↓
- More Detailed

## Social Support

- Enhanced outcomes with more support
- Source of support can be family, friends, “weight loss buddies”
- Can engineer social support in program
- Both approaches can promote successful weight loss



## Social Support Increases Group Attendance



Wing & Jeffery J Consult Clin Psych 1999; 67:132-138

## Dietary Recommendations for Weight Loss

- Calorie restriction necessary
- Fat restriction may be added
- Fat restriction ALONE not sufficient
- Fat reduction often encouraged by promoting increased intake of fruits, vegetables and whole grains



## Portion-Controlled Meals

- Control portion size
- Limit choice and provide structure
- Can significantly increase weight losses

## Portion Controlled Meals

- Meal replacements
  - Liquid diet shakes, snacks, etc.
  - Slim fast, Glucerna, etc.
- Frozen entrees
  - Uncle Ben’s “Bowls”
  - Lean Cuisines
  - Healthy Choice
- Structured meal plan + shopping list

## Increased Physical Activity Promotes Weight Loss



## Physical Activity Promotes Weight Loss

- Moderate physical activity increases weight losses in behavioral programs
- Exercise alone produces limited losses
- Combined with dietary changes see greatest weight losses



## How Much Exercise?

- 150 min/wk moderate exercise on more days than not
- Higher levels may promote weight maintenance (240 – 275 min/wk)
- Accumulated short bouts of 10/min effective
- Home-based more effective long term than structured, on-site



## What Type of Exercise?

- Aerobic
  - Primary
  - May be supplemented with strength building
- Walking most commonly selected among overweight individuals
- Pedometers
  - Motivational
  - Provide easy self monitoring
- Motivational campaigns

## Motivation

- Initial
  - Getting individuals to engage in weight control behaviors
- Intermediate
  - Achieving the greatest weight losses during weight initial weight loss induction (6 mo)
- Long Term
  - Sustained behavior change to promote weight maintenance

## Motivational Interviewing

- Developed by Miller and Rollnick (1990; 2002)
- “A directive, client-centered counseling style for enhancing motivation to change by having individuals clarify and resolve ambivalence”
- Brief intervention, often as adjunct

## Ambivalence: A Key Concept

- Feel “two ways” about change - part of you wants to do it and part of you doesn't
- A normal psychological experience
- Exists among most people considering behavior change





## Exploring Ambivalence

- Critical to address the negative or “not so good” things about change
- Explore in a measured, even-handed fashion
- Important not to ignore or argue against the “not so good” reasons
- To tip the balance, elaborate the benefits rather than diminish obstacles

## An MI Session

- Establish rapport and explore ambivalence
  - Open ended questions
  - Reflective listening
  - Pros and cons
- Develop discrepancy
- Menu versus single solution
- Assess readiness
- Summarize
- “Where does this leave you now?”

## Open Ended Questions

- Establish rapport
- Elicit wealth of information
- Cannot easily be answered by “yes” or “no”
- Usually begin with “What” “How” “Why” “Tell me about” or “Help me understand”

## Closed vs Open Questions

- Have you lost weight?
- Do you exercise regularly?
- Do you eat more when you’re stressed at work?
- Will you have any problems sticking to the program we’ve just discussed?

## Closed vs Open Questions

- How have your weight loss efforts gone?
- Tell me about your exercise routine.
- How does pressure at work impact your eating habits?
- What might get in the way of you sticking to the program we’ve just discussed?

## Reflective Listening

- Restate and rephrase, often elaborating slightly
- Builds rapport and keeps individual doing the talking
- Makes sure you both are on the same page
- Clarifying what you heard helps the individual clarify what she or he actually thinks
- Rule of thumb = person talks more than you do

### Reflective Listening

- It sounds like you are feeling . . .
- It sounds like you are not happy with . . .
- It sounds like you are having trouble with . . .

As you improve, you can shorten it . . .

- You're not ready to . . .
- You're having a problem with . . .
- You're feeling that . . .
- It's been difficult for you . . .

I know I should exercise so that I can lose this weight and help my blood pressure but I've been working a second job and barely have time to breathe. I just don't have the energy to go out walking after I finally get home.

Reflection: You recognize that exercise will have a beneficial effect on a lot of things including your weight and your blood pressure but you feel overwhelmed and stressed by having too little time for yourself.

"I bring fruits and vegetables home and try out new recipes but my husband and kids always complain. They want their chips and sodas and don't want the fruit. So it ends up going bad. I'm on a budget, so I can't afford to have food go to waste. And I can't force them to eat it."

Reflection: You try to help your family be healthy but they just don't seem to cooperate. You get frustrated.

### Pros and Cons

- Can you tell me some things that you like about . . .
- What are some of the reasons you might want to change . . .
- What are the not so good aspects of . . .
- What are some reasons that you might not be ready to change . . .

### Develop Discrepancy

- Difference between "where I see myself NOW" and "where I WANT to be"
- **CONTRAST** important goals or values (where I want to be) with current circumstances (where I see myself now)
- Listening for reasons to change generated by the individual

### Listening for Core Values

- Things that an individual aspires to or wishes to be
  - Healthy
  - Good spouse / parent / friend
  - Responsible / in control / strong
- Some clinicians provide cards with values to select
- Contrast current behaviors with these core values

## Developing Discrepancy

On the one hand you are really committed to being a good parent and providing a strong model for your children. On the other hand, you find that it is difficult to fit in your busy schedule work and homework, so you often find yourself bringing home fast food for dinner – even though you know that it is not healthy for your kids or for you. Help me understand how these two things fit together for you?

## Get Permission

- Before discussion of how person might change, ask permission
- “I would like to talk with you about concerns that I have about your weight. Would that be alright with you?”

## Introducing Behavior Change

You say that you’ve been thinking about ways to lose weight and start to be more active but that each strategy you’ve tried has only lasted for a few days. You’re worried that if you continue to gain weight and your blood pressure goes up, you’ll have a stroke like your mother and then be dependent on your husband and daughter. You don’t want that to happen. I share your concerns and want to talk with you about where you can go from here. Would that be ok with you?

## Menu vs Single Solutions

- Better to select from a menu of options rather than prescribe a single path
- Try to get the person to generate the menu
  - “There are a variety of different possibilities people have used successfully. What do you think might work best for you?”
- Task becomes selecting rather than debating

## Arriving At a Plan

- Select from the menu
- Have the person voice the plan
  - “So what is it specifically that you plan to do?”
  - “What do you think is the first step?”
  - “How will you go about it?”

## Summarize

“You been noticing that you’ve been feeling tired and depressed and you recognize that your high blood sugar contributes to this. So, you’ve decided that what you want to do, then, is to work on getting your weight and blood sugar down through diet and exercise. You prefer this to going on medication, although if it doesn’t work you know that there are medications that can help your diabetes. You want to give this a try for at least 2 months, and you’ll make an appointment for a month from now just to check in.”

## Summarize

“There is a health club near your house and you plan to go join today or tomorrow and start walking on the treadmill. You want to stay away from restaurant eating for a while and I’ve given you some ideas about food preparation. You plan to weigh yourself every other day in the morning and keep a chart. Have I missed anything?”

## Incorporating Behavioral Weight Control and MI into YOUR Practice

- Experiment with the strategies, spirit and methods

“Things do not change. We change.”

Henry David Thoreau, *Walden*

## Additional Resources

- <http://www.bsc.gwu.edu/dpp/index.html#vdoc>
- **Handbook of Obesity Treatment.** TA Wadden & AJ Stunkard (Eds). Guilford Press, 2002
- **Motivational Interviewing: Preparing People for Change.** WR Miller & S Rollnick (2<sup>nd</sup> Ed), Guilford Press, 2002
- DiLillo, V., Siegfried, N.J., West, D.S. (2003). Incorporating motivational interviewing into behavioral obesity treatment. Cognitive and Behavioral Practice, 10, 120-130.

## Upcoming Programs

**Heart Disease: The Number One Health Problem for Women**

Thursday, February 24, 2005

9:00 - 11:00 a.m. (Central Time)

**Postponing Sexual Involvement: Abstinence Counseling & Education**

Wednesday, March 2, 2005

2:00 - 4:00 p.m. (Central Time)

## Upcoming Programs

**Clinical Perspectives on Diabetes**

Thursday, March 10, 2005

2:00 - 4:00 p.m. (Central Time)

For a complete listing of all upcoming programs, [www.adph.org/alphn](http://www.adph.org/alphn)