A Behavioral Approach to Obesity

Karen B. Grothe, PhD, ABPP, LP

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Disclosures

Relevant financial relationships
None

Off-label investigational uses
None
Objectives

- Describe components of behavioral interventions
- Review parameters and outcomes
- Engage your patients in treatment
Behavioral Intervention

- Used interchangeably with lifestyle intervention
  - Diet
  - Physical activity
  - Behavior therapy
- Techniques to replace maladaptive behaviors with new eating and activity habits
Obesity Treatment

**Lifestyle Modification**
- Diet
- Physical Activity
- Behavior change

**Amount of weight loss**
- Mediations for weight loss: 10-15%
- Endoscopic procedures: 15-20%
- Bariatric surgery: 25-45%

**Increased risks**
### Lifestyle Intervention and Counseling (Comprehensive Lifestyle Intervention)

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>NHLBI Grade</th>
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<th>ACC/AHA COR</th>
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What is the most important component of behavioral intervention for weight loss?

A. Social support
B. Self-monitoring
C. Accountability
D. Changing how people think about food
Behavior Therapy for Obesity

- Self-monitoring
- Goal Setting
- Cognitive Restructuring
- Stimulus Control
- Mindful Eating
- Social Support

Wadden et al. *Circulation* 2012
Self-Monitoring and Weight Loss

Weight change (lb) at 18 wk of behavior therapy

$P = 0.01$ for weight change among quartiles

Self-monitoring

* Consistent predictor of weight loss
  * Calorie intake underestimated up to 50%
* More is better
  * High frequency + consistency = more weight loss
* Electronic tools may be better
* Food intake, weight, physical activity

Stimulus Control

- Identify stimuli that encourage eating
- Proximity of food and shape/size of containers influence how much is eaten
- Create a healthy environment
  - Keep high-calorie foods out of the home
  - Smaller plates, glasses, silverware
  - Limit the times and places of eating

Your Support System

- What types of support are most helpful for you?
  - Emotional, practical, inspiring support?
- What types of support are unhelpful?
- Set boundaries
- Communicate needs

Mindful Eating

**Mindfulness:** Being aware in the present moment on purpose, without judgment

- Do nothing else while eating
- Slow down and notice each bite
- Use all your senses to appreciate food and it’s source
- Recognize hunger and satiety cues
- How exactly do I practice mindful eating: Group exercise…..

http://www.thecenterformindfuleating.org/
Check Your Inner Thoughts for Patterns that Sabotage

- Negative self-talk
- All-or-nothing thinking
- Unrealistic expectations
Challenge Your Negative Thoughts

- I will never succeed at achieving a healthy weight
  - Challenge: I can make small changes
- I must lose two pounds this week
  - Challenge: I will be SMART this week
- I can never eat ________ again
  - Challenge: I will try to learn how to manage my problem foods
- I am such a failure
  - Challenge: Let me identify where I went wrong
- If I don’t exercise every day I am worthless
  - Challenge: My goal is to be more active, how can I do this?
## Unrealistic Weight Loss Goals

<table>
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<tr>
<th>Outcome</th>
<th>Weight (lbs)</th>
<th>% Reduction</th>
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<tbody>
<tr>
<td>Initial</td>
<td>218</td>
<td>0</td>
</tr>
<tr>
<td>Dream</td>
<td>135</td>
<td>38</td>
</tr>
<tr>
<td>Happy</td>
<td>150</td>
<td>31</td>
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<tr>
<td>Acceptable</td>
<td>163</td>
<td>25</td>
</tr>
<tr>
<td>Disappointed</td>
<td>180</td>
<td>17</td>
</tr>
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Goal setting

- Expectations difficult to alter
- Goal setting facilitates behavior change
- SMART goals: specific, measurable, attainable, relevant, time-limited
- A little bit bold
- Initial goal: 5 to 10% in 6 months

Casazza K et al., N Engl J Med 2013; 368:446-454;
Fabricatore et al., Int J Obes 2007; 31:1739-1745
Behavior Chain

- Woke up late
- Skipped breakfast
- Stressful day
- Snack from vending
- Hungry
- Felt ashamed
- Fast food meal
- Hid wrappers
- Ate dinner anyway
- Uncomfortably full
- I failed, so I quit!
Relapse Prevention

- Distinguish between lapse and relapse
- Identify high risk situations
- Maintain perspective
- Learn from experience
**Outcomes**

- Weight loss indicated and desired
- Lifestyle interventions
  - 8 kg in 6 months (~5 - 10%)
  - Variability
  - Greater than usual care

Cumulative Incidence of Diabetes According to Study Group

DPP Research Group, New Eng J Med 2002;346:393-403
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Weight loss maintenance

Figure 2. Adjusted Weight Change by Treatment Group

- Self-directed (n=341)
- Interactive technology (n=347)
- Personal contact (n=341)

Error bars indicate 95% confidence intervals.

Svetkey et al. JAMA 2008; 299(10):1139-1148
Weight loss maintenance

* Max weight loss 6 months, plateau, regain
* 35 - 60% maintain >5% weight loss at ≥2 years
* >50% return to baseline weight by 5 years
* Continued patient-provider contact is critical
* Strategies:
  * Self-weighing
  * Reduced-calorie diet
  * High levels of physical activity (>200 min/wk)

**National Weight Control Registry**

- Weight Control Registry
- 90% exercise ~1 hour/day
- 78% eat breakfast

Parameters

* Standard behavioral intervention
  * On-site
  * High-intensity (≥14 contacts in 6 months)
  * Initially weekly
  * Trained interventionist
  * Group or individual sessions

Why groups?

- Efficient
  - Access for patients
  - Financially viable
- Effective
  - Support
  - Accountability
  - Peer influence
- Fun
  - Patients offer creative solutions

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Electronically delivered interventions

* Frequent self-monitoring
* Personalized feedback - trained interventionist
* Weight loss: up to 5 kg at 6 -12 months
* More intensive = more weight loss
* In-person tends to deliver greater weight losses
Table 2. Percentage evidence-based behavioral strategy criteria met by mobile application

<table>
<thead>
<tr>
<th>App</th>
<th>Version</th>
<th>Platform</th>
<th>Cost ($)</th>
<th>% criteria met</th>
<th>% of technology-assisted strategies</th>
<th>Number of stars (of 5)</th>
</tr>
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<tbody>
<tr>
<td>MyNetDiary PRO</td>
<td>3.40</td>
<td>iPhone</td>
<td>3.99</td>
<td>65</td>
<td>29</td>
<td>5</td>
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<td>MyNetDiary</td>
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<td>iPhone</td>
<td>Free</td>
<td>65</td>
<td>0</td>
<td>5</td>
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<tr>
<td>All-in Fitness</td>
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<td>iPhone</td>
<td>0.99</td>
<td>25</td>
<td>29</td>
<td>3.5</td>
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<tr>
<td>Noom Weight Loss</td>
<td>2.0</td>
<td>Android</td>
<td>Free</td>
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<td>Android</td>
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<td>4.5</td>
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<tr>
<td>Daily Burn</td>
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<td>iPhone</td>
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Typical Dieter’s Loss/Gain Course

Weight

Time
Starting the conversation

* Ambivalence is normal
* “Can we discuss your weight today?”
* Assess readiness
  * “On a scale of 0-10, how motivated are you for weight management?”
* We believe what we hear ourselves say
* You don’t have to come up with all the answers
* “What do you think the next step is?”
Clinical Pearls
Clinical Pearls

* Start the discussion
* Emphasize behavior changes, not just the scale
* Self-monitoring dietary intake → weight loss
* Physical activity → weight loss maintenance
Clinician Directory

Type of Provider
Please select one

Primary Board Specialty
Please select one

Secondary Board Specialty
Please select one

Other Certifications
Please select one

Practice Name

Practice Setting
Please select one

Population Focus
Please select one

Setting
Please select one

Practice City

Practice State
Please select one

Practice Zip
Find a CBT Therapist

Zip/Postal Code

State/Province

USA, Minnesota

Specialty

Insurance

SEARCH
Percentage reduction in initial weight for participants who received a version of the DPP adapted for group-delivery in a YMCA vs participants in a control group.
What is the most important component of behavioral intervention for weight loss?

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C. Accountability
D. Changing how people think about food
Thank you