Separating Hype from Evidence: A review of key findings on behavioral approaches to weight loss

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Top Ten
(1) Age Matters: Older-Aged Persons Achieve and **Sustain** Weight Loss: Results from the TONE Trial

![Graph showing changes in weight over time after randomization]

- **No Weight Loss** (n=294)
- **Weight Loss** (n=291)

(2) Wt Loss Differs by Race and Gender: Mean Weight Loss (kg) at 6m in Phase 1 of the Weight Loss Maintenance Trial

(3) Weight regain is common without sustained intervention but **NOT** back to baseline

Svetkey JAMA 2008;299:1139
Why You Can’t Lose Weight on a Diet

The problem isn’t willpower. It’s neuroscience. You can’t — and shouldn’t — fight back.

By SANDRA AAMODT   MAY 6, 2016
Partial Weight Regain After “Biggest” Loser

Weight loss at end of competition = 58 kg
Weight regained over 6 years = 41 kg
Net weight loss sustained = 17 kg

Fothergill, Obesity 2016
(4a) Personal counseling for 2.5 Years modestly blunts weight regain

Svetkey JAMA 2008;299:1139
(4b) Personal Counseling Beyond 2.5 Years has No Additional Benefit

Coughlin Obesity 2016;24:1046
(5) Web-based intervention alone does not blunt weight regain

Svetkey JAMA 2008;299:1139
(6) Diets that Emphasize Different Macronutrients Do NOT Lead to Different Weight Loss

Sacks FM, NEJM 2009; 360;859

<table>
<thead>
<tr>
<th>% Kcal from:</th>
<th>Diet 1</th>
<th>Diet 2</th>
<th>Diet 3</th>
<th>Diet 4</th>
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</thead>
<tbody>
<tr>
<td>Carbohydrate</td>
<td>65</td>
<td>55</td>
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<tr>
<td>Protein</td>
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<tr>
<td>Fat</td>
<td>20</td>
<td>20</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>
(7) Little Evidence that Doctors are Effective at Delivering Behavioral Weight Loss Interventions

Conclusion: …little research on primary care practitioners providing intensive counseling. A range of trained interventionists, who provide such care by phone or in person, could be considered.

therapy) for at least 3 months, with at least 6 months of postrandomization follow-up; included at least 15 participants per treatment group and objectively measured weights; and had a comparator, an intention-to-treat analysis, and attrition of less than 30% at 1 year or less than 40% at longer follow-up.

Wadden, JAMA 2014; 1779
Decision Memo for Intensive Behavioral Therapy for Obesity (CAG-00423N)

- ‘Grade A evidence’
- Candidates: Individuals with BMI ≥ 30 kg/m²
- Intensive behavioral therapy
  - Screening
  - Dietary (nutritional) assessment
  - Intensive behavioral counseling
Weight Watchers Most Effective of 7 Programs: 1 Year Weight Loss (Kg) Among Patients

* P <0.05

Remote Delivery of Weight Loss Intervention As Effective as In-Person Intervention

Appel et al, NEJM 2011;365:1959-68

*P <0.001 (vs control)
(9) Substantial Variability in Wt Loss: Weight Change in Remote Intervention

Unpublished data from POWER trial
Toxic Environment: The Real Culprit
The (Toxic) Environment

- Food availability
  - Abundant inexpensive calories
  - Massive increase in portion sizes
- Sources
  - Calorie dense food
  - Liquid calories
  - Huge portions
- Decreased physical activity
  - Labor saving devices
  - Built environment
- Change in ‘normative’ behavior
  - Glorification of excess calorie consumption
Direct from the Iowa State Fair:
Deep Fried Butter
Difficult to Prove that Environment is Causally Related to Obesity Pandemic

Conclusion: …limited evidence for associations between local food environment and obesity. …interpreted cautiously because of low quality of available studies.

Among non-null associations, we saw a trend toward inverse associations between supermarket availability and obesity (22 negative, 4 positive, 67 null) and direct associations between fast food and obesity (29 positive, 6 negative, 71 null) in adults. We saw direct associations between fast food availability and obesity in lower income children (12 positive, 7 null). Indices including multiple food outlets were most...
Questions ?