Testing an Innovative Multi-level Workplace Weight Loss Intervention in the “Working for You” Study

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Working for You (WFY) Description

• Randomized controlled trial (RCT) to test a workplace intervention addressing both individual and workplace factors related to healthy weight

• Targets low-wage & hourly workers

• Includes use of a participatory approach and an individually tailored weight loss intervention using SMS text messaging
Background

• Workplaces can be effective venues for health promotion efforts, especially for socially disadvantaged populations

• Obesity is strongly associated with low education and low income

• Low-wage workers less likely to use workplace wellness programs*

• Obesity and related diseases affect health and work productivity

*Strickland papers (May 2015) in Preventing Chronic Disease
Methods

2-year RCT with 22 work groups from a large integrated health care system and university

Multi-level nested intervention (11 groups)
  - Workplace participatory program – all workers
  - Interactive obesity treatment approach (iOTA) using SMS text messaging & health coach - obese workers

Surveys and weight measurements at BL and every 6 months during study period
  - Primary outcome: weight loss at 12m and 24m
  - Secondary outcomes: Self-report diet & physical activity
Study Flow Chart

Identify possible work groups

Enroll participants / conduct Baseline assessments*

RANDOMIZE GROUP

Intervention condition (n=11)

Control condition (n=11)

20 groups randomized to date

Working for You Program + Follow-up assessments*

9 groups initiated

Follow-up assessments*

*Assessments = survey & height/weight; F/u occurs every 6 months for 2 years
Participatory Workplace Intervention

Environmental intervention for all workers in the intervention groups
Workplace Intervention Development

• Based on:
  • Participatory Action Research (PAR)
  • Healthy Workplace Participatory Program (HWPP)*
  • Human-Centered Design (HCD)

• Goal is to identify workplace barriers to healthy behaviors and generate effective solutions

• Create a “design team” in each work group
  • 4-6 workers per team
  • Initially led by researchers

*CPH-NEW (Center for the Promotion of Health in the New England Workplace)
WFY Model

- **Health Team** = 4-6 front line workers
- **Facilitator** = research team member
- Management invited to attend meetings; approves concepts
- Weekly meetings for first quarter; bi-weekly after that
- Involve employer wellness personnel when possible
Participatory Team Concept Examples

Problems addressed:

- Few healthy options
- Money can be an issue
- Benefit book is too big
Individual Weight Loss Intervention (iOTA)

For OBESE workers in the intervention groups
iOTA Development

• Based on the Be Fit Be Well (BFBW) and Diabetes Prevention Program (DPP) trials

• Transdisciplinary team modified BFBW messaging and adapted for use with SMS text messaging

• Conducted a series of focus groups to gather feedback from workers

• Final intervention has 19 goal domains with multiple goal levels in each domain
iOTA Goals Domains by Category

**Physical Activity**
- Steps
- Brisk activity

**Purchased Food**
- Healthy meal choices
- Limiting at work
- Meals at home
- Free food limiting at work

**General Healthy Eating**
- Sugary drinks
- Healthy Breakfast
- Low-fat dairy
- Fruits and vegetables
- Vegetables
- Whole grain
- High-fat meat
- High calorie snacks
- Screen time snacking

**More advanced goal options**
- Self-monitor diet
- Limit added calories
- Total calories
- Portion control
iOTA Protocol

- Recruitment & Barriers interview
- Initial Coaching Session - discuss goal setting & self-monitoring via text messaging
- Quarterly Coaching Sessions – weigh-in, review progress, and adjust goals
- Weekly automated text messaging
  - Report weight & weekly goal progress
  - Receive tailored feedback
  - Receive tips related to each goal
- Ability to upgrade goals via text message
- Ability to text directly with coach
### iOTA Details

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reminder to weigh self</td>
<td>Mini-coaching session – response prompts</td>
<td>Goal tip</td>
<td>Goal tip</td>
<td>Goal tip</td>
<td>Goal tip</td>
<td>General message on 1st Sunday of the month</td>
</tr>
</tbody>
</table>

*If no response on Tues, will prompt again.*

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(1/2) HealthTXT: How many days this week did you replace full-fat dairy with low-fat choices? Reply with a number from 0 to 7 and the word MILK, like 6 MILK.

(2/2) Or SKIP MILK.

HealthTXT: How many days this week did you eat a healthy breakfast? Reply with a number from 0 to 7 and word BREAK, like 6 BREAK. Reply SKIP BREAK to skip this.

5 break
iOTA Feasibility & Usability Testing

• Piloted with 20 employees in billing office
  • 4 dropped out within first 3 months
  • 16 are still active at 9 months
• Overall compliance is good
  • Full compliance = 66%
  • Partial compliance = 20%
  • Non-compliance = 14%
• Overall goal success = 61%
• Goal success and weight loss appear to be highly correlated
Lessons learned from pilot

• Advanced goals too early = less success
  • Avg. success rate simple dietary goals = 71%
  • Avg. success rate physical activity goals = 47%
  • Avg. success rate advanced goals = 31%

• Set realistic expectations

• People are continuing with the program even if they haven’t lost weight → they like the accountability
iOTA Progress

• 91 participants currently enrolled

• Compliance rates slightly lower than pilot, but similar goal success rates

• Anecdotal evidence

  “My doctor said if I keep losing weight, I may be able to get off my diabetes medication.” – Participant down 7lbs in 3 months

  “I was just diagnosed with diabetes. This [program] is helping me stay on track. Thank you.” – Participant down 8lbs in 3 months
Working for You highlights

• Focus on low income
• Multi-level and transdisciplinary - change work environment AND individual behaviors
• Designed with the WORKER in mind
• 2-year project to encourage long-term behavior change which includes self-monitoring
• Scalable and designed for future dissemination
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Research Team

PI - Brad Evanoff

Co-investigators - Graham Colditz, Ann Marie Dale, Rachel Tabak, Richard Stein

Study team - Sam Biver, Skye Buckner-Petty, Nikki Caito, Hank Dart, Natavia Jacobs, Anna Kinghorn, Bridget Kirk, Tara Ruggeri

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