



ACBS World Conference
SAN FRANCISCO
— June 14-19, 2022 —

Acceptance and Commitment
Therapy for Weight Loss

Symposium
Saturday, June 18, 2022
Union Square 17 & 18



Being overweight & obesity are major public health concerns

Worldwide, two billion adults are
overweight or obese

- Obesity contribute to many health conditions including diabetes, heart disease, and cancers
- The medical cost of adult obesity in the US is \$342 billion per year, which is 28% of all adult healthcare spending
- Efficacious treatments for weight loss are needed



Acceptance & Commitment Therapy for weight loss

Despite the need for treatment, current standard behavioral therapies (SBT) for weight loss can be effective but leave ample room for improvement

- An innovative and promising approach for weight loss is Acceptance and Commitment Therapy (ACT)
- Unlike SBT, ACT for weight loss focuses on increasing willingness to experience discomfort that cue eating

The aim of this symposium is to present ACT-based interventions for weight loss

Symposia presenters



Margarita Santiago-Torres, PhD
Research Scientist
Fred Hutchinson Cancer Center
Seattle, WA

Presentation: The design and conduct of WeLNES RCT of a telephone-delivered ACT for weight loss



Jason Lillis, PhD
Assistant Professor
Brown Medical School
Providence, RI,

Presentation: Protocol for the Healthy for Life Study: A RCT testing a low-intensity ACT intervention for weight loss maintenance



Matt Herbert, PhD
Assistant Professor
University of California
San Diego, CA

Presentation: Characteristics of Active-Duty Service Members & Associations with Body Composition in a Pragmatic RCT of Weight Management



Rachel M. Radin, PhD
Assistant Professor
University of California
San Francisco, CA

Presentation: Impact of digital meditation on behavioral & physiological health outcomes in adults with overweight: An RCT

Design and conduct of **WeLNES**
randomized controlled trial of a telephone-delivered
Acceptance and Commitment Therapy for weight loss

Margarita Santiago-Torres,
Ph.D.

Public Health Sciences
Fred Hutchinson Cancer Center

June 18, 2022



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Disclosures

Neither I, nor any of the research team, have received or will receive any commercial support related to this presentation or the work presented in this presentation



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Worldwide obesity epidemic

- Worldwide, two billion adults are overweight or obese
- In the US, two in three adults in the US are overweight or obese
- One of the most preventable causes of death
- Contributes to heart disease, diabetes, and multiple cancers
- In the US, \$342 Billion in medical costs and 28% of all healthcare spending

Telephone coaching has potential for great reach

- Coaches provide skills training on motivation, diet, physical activity, coping with cravings
- Advantages over in-person intervention:
 - Higher reach to minorities, lower income, lower education, rural residences, those with depression, and men (due to stigma)
 - Tailored training to each person's triggers, motivations, coping skills, and individualized progress feedback
- Reach over 1.2 million people in the US
- Potential for population-level impact

Small effect size of telephone coaching interventions

- Small effect size of 0.46 mean difference in body mass index (BMI) between intervention and control groups
- Why? Like in-person treatments, telephone coaching has been using the same behavioral change model since the early 1990s
- Small effect size limits population-level impact of telephone coaching for weight loss

A potential solution: Acceptance & Commitment Therapy

An innovative & promising approach for weight loss



- Acceptance and Commitment Therapy (ACT) teaches skills for **allowing urges to overeat** to pass vs. Standard Behavioral Therapy (SBT) that teaches **avoidance of food cravings**
- ACT motivates by focusing on **values** vs. SBT-based approaches that motivate by using **expectancies**

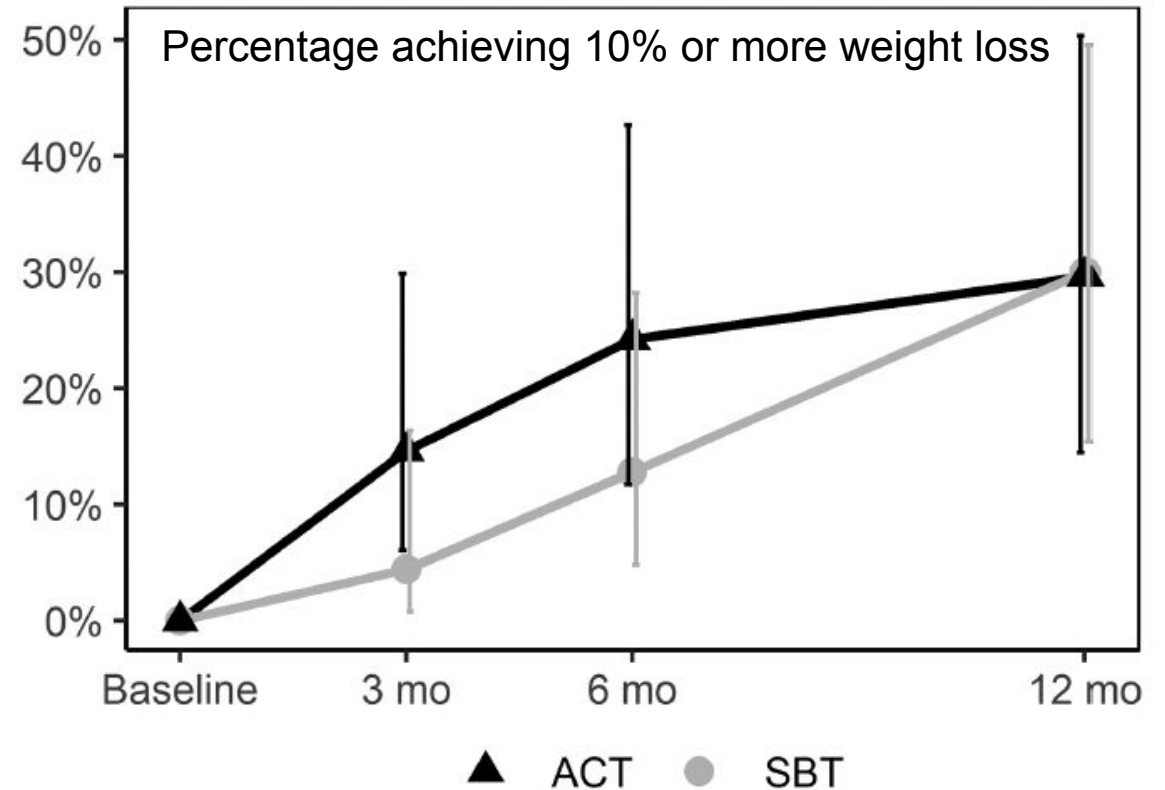
Successful pilot study: ACT phone therapy to help people lose weight

Funding: Fred Hutchinson Cancer Center Hutch Award Luncheon, awarded to Dr. Jonathan Bricker.
The funder had no role in the trial conduct or interpretation of results

Jonathan B. Bricker,^{1,2,Ⓞ} Kristin E. Mull,^{1,Ⓞ} Brianna M. Sullivan,^{1,Ⓞ} Evan M. Forman^{3,Ⓞ}

Main results:

- 105 overweight or obese adults
- Mean BMI 34.3 kg/m²
- Recruited from 32 US states
- 34% racial/ethnic minority group
- 71% retention rate at 12-months
- Both treatment arms adhered similarly to their intervention
- ACT vs. SBT intervention was more favorable for weight loss at 3- and 6-months but not at 12-months



Lessons learned from the pilot study

1. Weight loss effect faded by 12-months – *technical problems with scale?*
 - **Potential solution:** use a digital scale with better usability/reliability
2. Previous ACT-based in-person weight loss trial found that observed weight loss differences at 12-months attenuated by 24-months¹
 - **Potential solution:** booster calls could be added to Year 2
3. Feedback from study participants
 - **Potential solution:** use feedback to inform iterations of future interventions

¹Forman E et al. Obesity 2019; 27(4): 565-571

WeLNES

A randomized clinical trial of ACT telephone coaching for weight loss

Funding: National Cancer Institute of Diabetes and Digestive and Kidney Diseases (R01DK124114-02), awarded to Dr. Jonathan Bricker

Telephone delivered program for weight loss

WeLNES

Weight Loss Nutrition Exercise Study

- 24-month weight loss program
- 398 adults who want to lose weight
- Nationwide recruitment
- Randomization 1:1 to ACT or SBT
- Stratification by sex and race/ethnicity



Study aims

Study aims

1. Test the efficacy of ACT vs. SBT telephone coaching for weight loss
2. Compare changes in weight, diet, and physical activity across arms
3. Test whether changes in acceptance, mindful eating, and values mediate the effect of the intervention on weight loss

Hypothesis: At the 12-month follow-up, ACT telephone coaching will have a

significantly higher proportion of participants with at least 10% weight loss

Shared components ACT & SBT telephone coaching



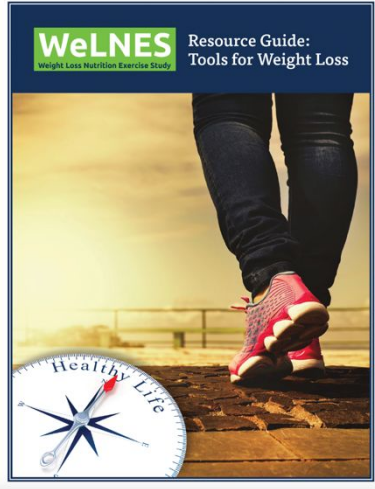
1. Nutrition education*
2. Physical activity education
3. Setting specific and actionable goals for eating healthy and physical activity
4. Self-monitoring of weight, diet, and physical activity
5. Provide feedback on progress
6. Stimulus control (e.g., removal of problematic foods from home and work)
7. Relapse prevention
8. Social support

*1200-1800 calorie per day goal depending on starting weight

Distinct components of SBT & ACT telephone coaching

	Included only in SBT	Included only in ACT
General approach for all triggers	Avoidance: How can you avoid or control your urges?	Being Present & Acceptance: How willing are you to have, and not try to change, your urges to eat?
Specific approach for cravings	Avoidant Craving Coping Skills: Engaging in distracting activity	Acceptance: Noticing all 5 senses while eating or exercising
Specific approach for thoughts	Cognitive Restructuring: “Eating sweets makes me feel better” is replaced with: “Sweets increase my weight in the long run”	Cognitive Defusion: Stepping back from the process of thinking – imagining thoughts as leaves floating down the stream
Specific approach for motivation	Expectancies: Listing expected outcomes of losing weight	Values: Creating a personal weight loss vision statement that guides goals and specific actions for diet and physical activity

Mailed intervention materials



Sample of ACT arm call content

Weekly calls 1-16 – Weight Loss Phase

- Call 1: Values; Goals; Self-Monitoring; Cutting Back on High Calorie Foods
- Call 2: Awareness; 3 Deep Breaths; Calorie Cutting Keys




Transition to biweekly calls 17-23 - Maintenance Phase

- Call 17: Willingness; Cravings Monster; Review a Healthy Diet
- Call 20: Committed Action
- Call 23: Staying Focused on Your Values


Transition to monthly 24-25 calls

- Call 25: Values; Recognizing Progress; Reflecting on What's been

Recruitment: Facebook & Instagram ads




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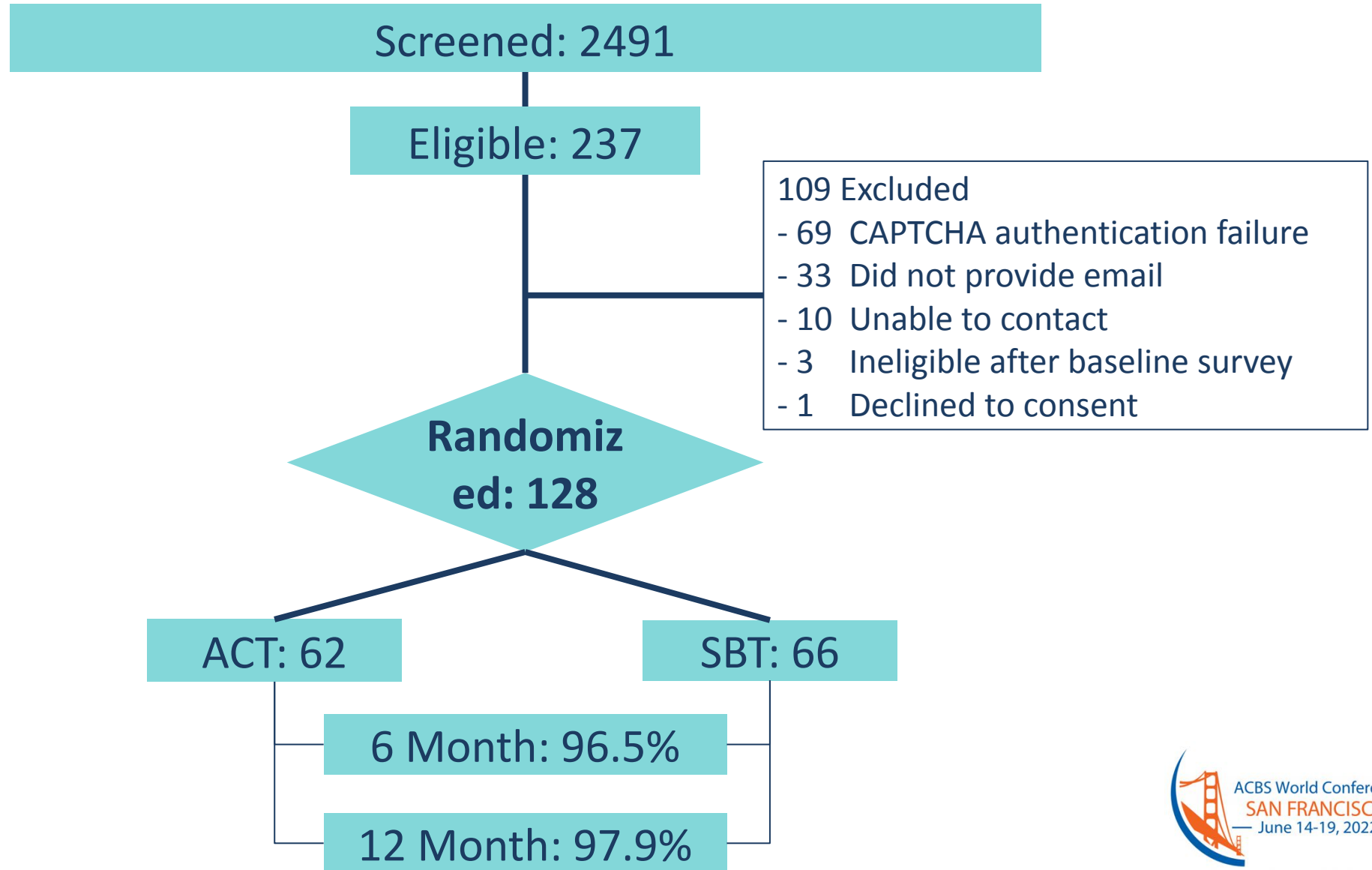
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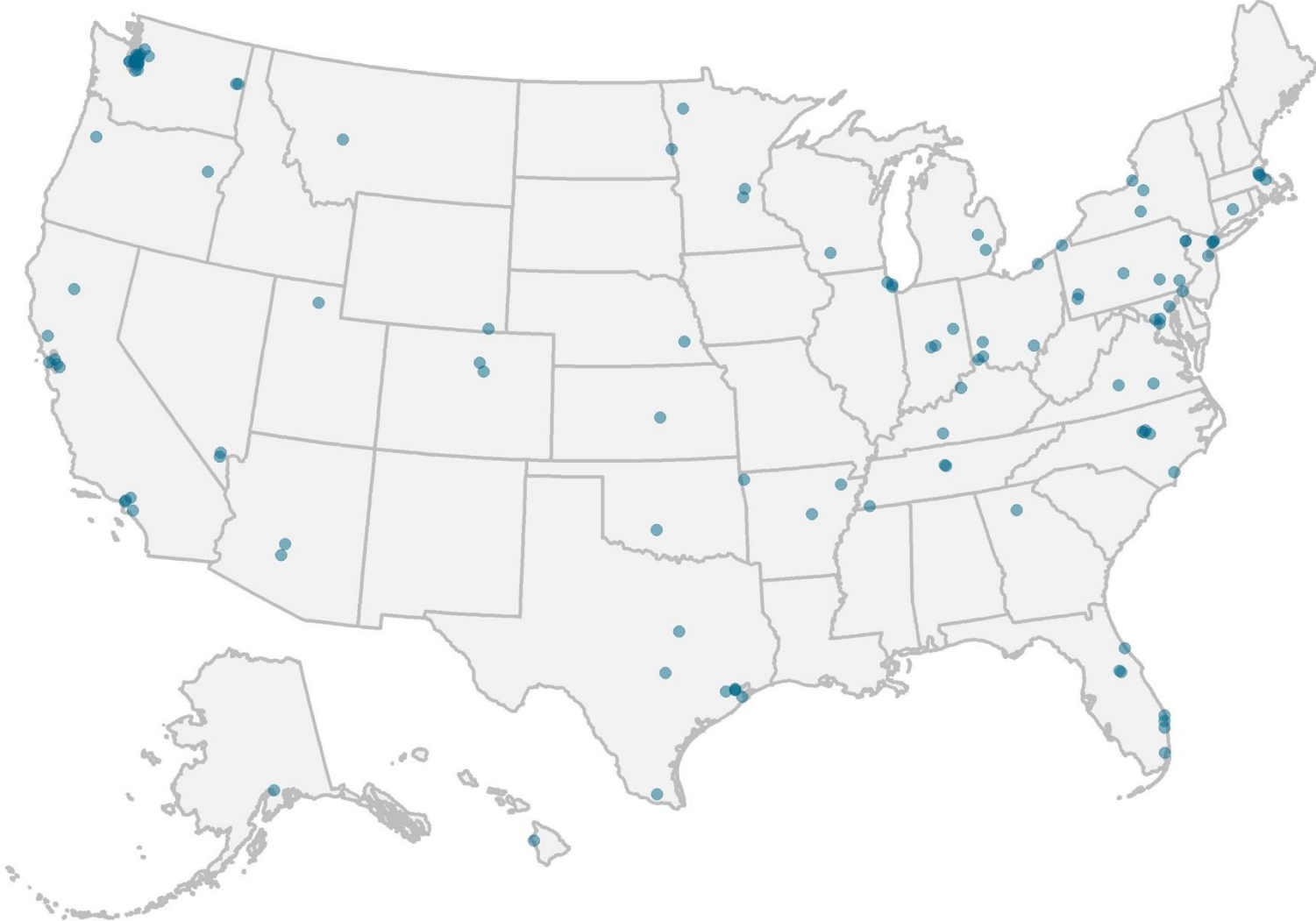
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Enrollment to date



Geographic location of participants from 37 US states



Baseline characteristics to date (n=128)

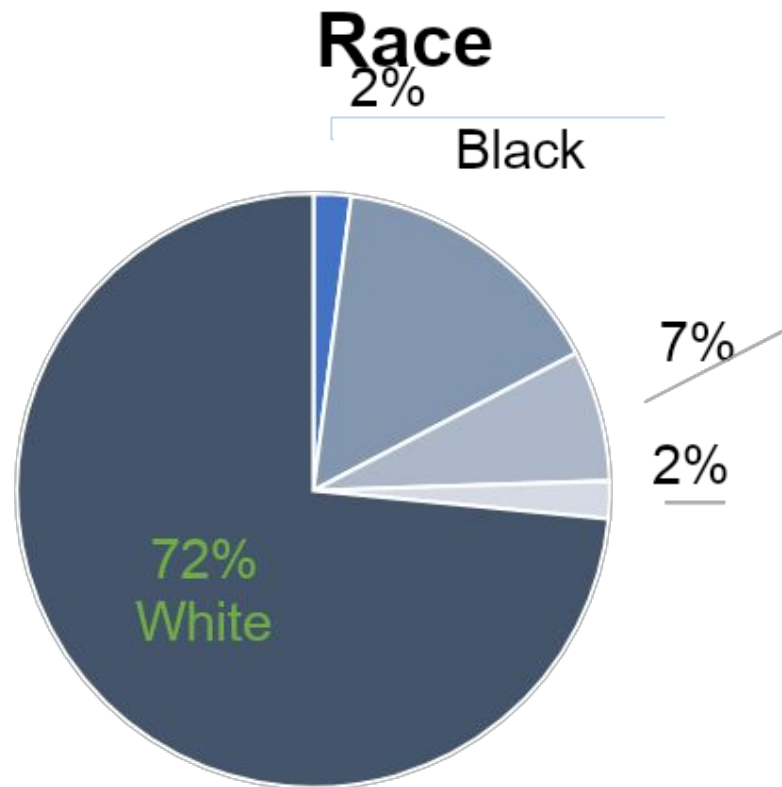
47
years old

31%
male

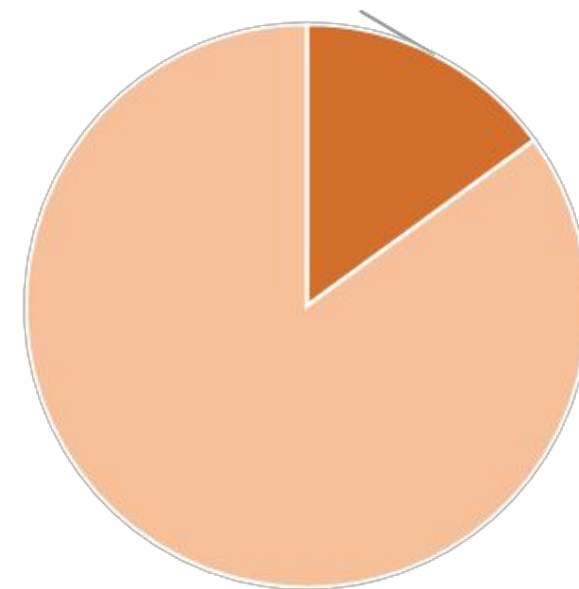
91%
has some college

70%
employed

11%
Hispanic



Depression Screening*



*Center for Epidemiologic Studies Depression Scale (CES-D)

Conclusions

- This is the *first* full-scale RCT testing the efficacy of an ACT telephone coaching program against a SBT program for weight loss.
- Geographical and race/ethnicity diversity of participants suggest potential for broad reach and generalization of the results.
- If efficacious and engaging, this study will provide important data of a remotely-delivered program for weight loss with potential for high population-level impact.

Thank You

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