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# Cardi-OH ECHO Weight Management

A Patient-Centered Approach

Thursday, October 17, 2019

#### Disclosure Statements





The following planners, speakers, moderators, and/or panelists of the CME activity have financial relationships with commercial interests to disclose:

- Adam T. Perzynski, PhD reports being co-founder of Global Health Metrics LLC, a Clevelandbased software company and royalty agreements for forthcoming books with Springer publishing and Taylor Francis publishing.
- Siran M. Koroukian, PhD received funds for her role as a site PI on a subcontract with the Cleveland Clinic.
- Christopher A. Taylor, PhD, RDN, LD, FAND reports grant funding and travel support for his role as a consultant, researcher, and presenter for Abbott Nutrition, and is also a member of the Scientific Advisory Council of Viocare, Inc.
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### Weight-management strategies: Self-monitoring





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### Objectives



After attending this brief didactic session, you should be able to accomplish the following:

- 1) Define self-monitoring.
- 2) Describe potential mechanisms through which selfmonitoring promotes weight loss.
- 3) List and describe a minimum of 3 practical tools for self-monitoring.



#### ORIGINAL ARTICLE



#### An Internet-Based Pediatric Weight Management Program with and without Financial Incentives: A Randomized Trial

Goutham Rao, MD, Jodi Krall, PhD, and George Loewenstein, PhD3

#### Abstract

Background: Obesity among children is a serious problem and effective programs are scarce. The Internet is a promising weight management tool. Financial incentives to promote weight loss among adults have shown positive results. We compared a standard in-person program for children to an online program with and without financial incentives in terms of 6-month weight change.

Methods: Children age 8-15 were randomized to a monthly clinic group (control), an online program, and to the same online program with a financial incentive designed to encourage daily participation.

Results: 180 children were recruited (60 per group). Only 37% of children completed the study (55%, 27%, and 28% in the control, online, and online-incentive groups respectively.) 62% of children either maintained or had a decrease in BMI% with no differences by group. Mean BMI% of children decreased by 0.40% with no differences by group. Usage of both online programs declined rapidly after the first month, and only 4 children earned financial incentives.

Conclusions: Online programs are associated with high attrition rates, even with financial incentives. However, there is evidence that online programs can achieve results comparable to in-person programs. The structure of successful online incentive programs for children needs further study.

## Self-Monitoring



 Self-monitoring refers to the observing and recording of eating and exercise patterns, followed by feedback on the behaviors.





#### **Hunter gatherer clue to obesity**

By Helen Briggs **BBC News** 

O 26 July 2012











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The idea that exercise is more important than diet in the fight against obesity has been contradicted by new research.

A study of the Hadza tribe, who still exist as hunter gatherers, suggests the amount of calories we need is a fixed human characteristic.

This suggests Westerners are growing obese through over-eating rather than having inactive lifestyles, say scientists.



that has changed little in 10,000 years

### Some Core Principles



- Self-monitoring works to achieve better outcomes!
- Dose-dependent.
- The means through which self-monitoring is achieved is less important than motivation and adherence.

# Methods for Dietary and Physical Activity Self-Monitoring



- Paper logs
- Electronic diaries
- Activity monitors
- Behavioral diaries

## Self-Weighing



- Systematic review VanWormer et al (2008)
- Regular self-weighing predictive of moderate weight loss, less weight gain, and avoidance of initial weight gain in adults.
- Other research has shown no negative psychological consequences.
- Self-weighing generally studied as part of other interventions.
- Only one-study with self-weighing as sole intervention (unpublished) with equivocal results.

## The Challenge



Published in final edited form as:

Nutr Res. 2012 April; 32(4): 260–265. doi:10.1016/j.nutres.2012.03.001.

Adoption of diet-related self-monitoring behaviors varies by race/ethnicity, education, and baseline binge eating score among overweight-to-obese postmenopausal women in a 12-month dietary weight loss intervention

Angela Kong<sup>a</sup>, Shirley A.A. Beresford<sup>b,c</sup>, Ikuyo Imayama<sup>b</sup>, Catherine Duggan<sup>b</sup>, Catherine M. Alfano<sup>d</sup>, Karen E. Foster-Schubert<sup>b,e</sup>, Marian L. Neuhouser<sup>b,c</sup>, Donna B. Johnson<sup>c</sup>, Ching-Yun Wang<sup>b</sup>, Liren Xiao<sup>b</sup>, Carolyn E. Bain<sup>b</sup>, and Anne McTiernan<sup>b,c,e</sup>

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#### Racial Differences in Weight Loss Mediated by Engagement and Behavior Change

Loneke T. Blackman Carr, Carmen Samuel-Hodge, Dianne Stanton Ward, Kelly R. Evenson, Shrikant I. Bangdiwala, Deborah F. Tate

Abstract

**Objective:** We set out to determine if a primarily Internet-delivered behavioral weight loss intervention produced differential weight loss in African American and non-Hispanic White women, and to identify possible mediators.

**Design:** Data for this analysis were from a randomized controlled trial, collected at baseline and 4-months.

**Setting:** The intervention included monthly face-to-face group sessions and an Internet component that participants were recommended to use at least once weekly.

**Participants:** We included overweight or obese African American and non-Hispanic White women (n=170), with at least weekly Internet access, who were able to attend group sessions.

**Intervention:** Monthly face-to-face group sessions were delivered in large or small groups. The Internet component included automated tailored feedback, self-monitoring tools, written lessons, video resources, problem solving, exercise action planning tools, and social support through message boards.

**Main outcome measure:** Multiple linear regression was used to evaluate race group differences in weight change.

Results: Non-Hispanic White women lost more weight than African American women (-5.03% vs.-2.39%, P=.0002). Greater website log-ins and higher change in Eating Behavior Inventory score in non-Hispanic White women partially mediated the race-weight loss relationship. Conclusions: The weight loss disparity may be addressed through improved website engagement and adoption of weight control behaviors.

Ethn Dis. 2018;28(1):43-48; doi:10.18865/ed.28.1.43.

PMCID: PMC4738858

PMID: <u>26843799</u>

# Higher Motivation for Weight Loss in African American than Caucasian Rural Patients with Hypertension and/or Diabetes

Jacob Warren, 1 Bryant Smalley, 2 and Nikki Barefoot 2

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J Health Commun. 2011;16 Suppl 3:268-78. doi: 10.1080/10810730.2011.604388.

#### Health literacy explains racial disparities in diabetes medication adherence.

Osborn CY<sup>1</sup>, Cavanaugh K, Wallston KA, Kripalani S, Elasy TA, Rothman RL, White RO.

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#### Diabetes numeracy

An overlooked factor in understanding racial disparities in glycemic control

Chandra Y. Osborn, Kerri Cavanaugh, Kenneth A. Wallston, Richard O White, Russell L. Rothman

Research output: Contribution to journal > Article



### Thank you!

Questions/Discussion