

Individual Response to Diet Instructions by Adults with Intellectual or Developmental Disabilities: An Analysis of the Use of Monetary Incentives for Self-Tracking Food Consumption and Exercise

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Introduction

- Individuals with intellectual or developmental disabilities (IDD) have been reported to experience a higher prevalence of obesity, diabetes, and other obesity-related chronic diseases as compared to individuals without disabilities and this disparity is increasing (Reichard & Stolzle, 2010).
- Saunders et al. (2010) attempted to address this major public health issue in a pilot weight loss study involving adults with IDD in the state of Kansas. The major elements of this diet intervention were:
 - ≤3 HMR® meal-replacement shakes
 - ≤2 frozen entrees (≤300 kcal)
 - Teaching a modified version of Epstein and Squires' (1988) Stop Light Diet for food and beverage selections
 - Individualized monthly meetings
 - Delivery of monetary incentives for self-tracking of food and beverage intake and exercise
- Contingent delivery of monetary incentives (contingency management) has a long documented history of promoting and sustaining behavior change for public health problems in which behavior is a proximal cause (Higgins, Silverman, & Heil, 2008).
- Although contingency management procedures have been proven effective in targeting weight loss among a U.S. veteran population (Volpp et al., 2008), application of these procedures with overweight or obese individuals with IDD has not been reported.

Method

Participants and Settings

- N=73 adult participants with IDD living in the state of Kansas completed a 6-month diet phase. Six additional participants left the project prior to completing the 6 months.
- The participants met with research staff in monthly in visits in either the participant's home or in an office at an IDD service agency. Caregivers attended all meetings in the home and sometimes attended office-based meetings.

Incentive Procedures for Self-Tracking

- \$0.10 could be earned for every "on-diet" food or beverage consumed and every period of any form of exercise recorded by the participant on weekly tracking forms, with a weekly maximum of ~\$8.00.
- Participants received half of these earnings at the monthly meetings and half was deposited into a personal "savings account."
- Participants were also paid immediately at monthly meetings for self-recorded walking (\$5.00 per 100,000 steps); no walking funds were deposited in the savings account.

Savings Account Dispersal

- **Contingent:** If weight loss at any monthly meeting was 1 BMI or more since the previous meeting, the savings account was paid in full at that meeting. Savings began again in the next month (unless another BMI had been lost).
- **NonContingent:** Any accumulated savings not paid in the first 5 monthly meetings was paid in full at the 6th monthly meeting regardless of weight lost or gained.

Discussion

- Contingency management targeting self-tracking of consumption and exercise may be an effective procedure to aid in a weight loss intervention for individuals with IDD.
- In the present study, there was no systematic relationship between weight lost and amount earned.
- One potential positive effect of incentives may have been to retain a high percentage of enrollees in the diet. Longer participation allows more contact with the interventionists who may eventually be effective in teaching ways to comply with the diet.
- An important aspect of the present study may have been that participants were paid in cash for presentation of their self-tracking records. This hypothesis should be addressed in additional research.

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Name:	Diet Record				Week #
	MON	TUE	WED	THURS	