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Multicomponent Behavioral Program for Achieving Weight Loss in Adult Mentally Retarded Persons

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Published version. *Mental Retardation*, Vol. 18 (February 1980): 31-33. [Publisher Link](#).

From: Multicomponent Behavioral Program for Achieving Weight Loss in Adult Mentally Retarded Persons, *Mental Retardation*, 1980, 31-33, Rotatori, A., Fox, R., Switzky, H. © 1980 by the American Association on Intellectual and Developmental Disabilities. Permission to include this journal material in Marquette University's digital repository was provided by the American Association on Intellectual and Developmental Disabilities (www.aaidd.org). This material may only be used for educational and/or research purposes, and may not be reproduced in derivative works for commercial or revenue-generating purposes.

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Use of Behavioral Treatment: Agreement in Principle Between A Residential Facility and An Educational Agency

Elizabeth K. Anderson

In Michigan, where school districts have the responsibility of providing education for the residents of Department of Mental Health centers for the mentally retarded, the separate rules and regulations of the two agencies can result in conflicts over the care and treatment of these clients in common. Such a conflict arose between one such center's professional staff and the professional staff of the providing school district over the use of behavioral treatment as an educational method. To resolve the conflict, several meetings between residential facility personnel, school district personnel and a representative of an advocacy agency were held. The result was an agreement in principle establishing procedures of behavioral treatment.

In the process of developing the agreement, behavioral treatment had to be distinguished from discipline of students and also from educational practices which do not require special permission of parents, guardians or a review committee. Behavioral treatment as covered in the agreement referred to a planned procedure to produce desired alterations of a student's maladaptive behavior patterns. Separate procedures for three levels of consequences with increasing aversive qualities were developed: positive or neutral consequences, mildly negative consequences, and moderately

negative consequences. These distinctions were made to enable educators to proceed with a minimum of delay while still protecting client rights.

The key headings in the agreement were: (1) Purpose of the Agreement, (2) Behavioral Treatment vs Discipline of Students, (3) Definition of Behavioral Treatment, (4) Philosophy of Behavioral Treatment, (5) Procedures for the Use of Behavioral Treatment, and (6) Resolution of Disputes. The agreement, which must be renegotiated annually, was signed by the director of the center and the superintendent of the school district. Disputes arising over the use of behavioral treatment are reviewed by administrators of both agencies who are immediately supervised by the signators of the agreement. If they cannot be resolved at that level, the superintendent and the director resolve the dispute.

Copies of the agreement are available by writing directly to the author.

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A Multicomponent Behavioral Program for Achieving Weight Loss in the Adult Mentally Retarded Person

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Only minimal attention has been directed towards demonstrating the effectiveness of be-

havioral approaches to weight control with mentally retarded individuals (Foreyt & Parks, 1975; Foxx,

1972; Staugatis, 1978). The paucity of research in this area is unfortunate because the association between intelligence and obesity is high and negative (Krege, Zelina, Juhas & Garbara, 1947). The purpose of the present study was to assess whether a multicomponent behavioral weight reduction treatment program could produce and maintain weight loss in overweight formerly institutionalized adult retarded individuals residing in a community-living facility.

Method

Subjects

Eighteen mildly retarded adults, who resided in a semi-independent residential intermediate care facility volunteered to participate in a weight reduction program. The subjects were randomly assigned to either a Behavior Therapy group or a Control group. U-Tests comparing ages, heights, IQ test scores and initial percent overweight revealed no significant differences between the two groups on these variables.

Procedure

The first author met separately with the Behavior Therapy group and the Control group. The Control subjects were informed that the weight reduction program was already filled and that they should try to lose weight on their own. The Control subjects were not seen again until seven weeks later for a weigh-in. The Behavior Therapy group met once a week over a seven week period. The meetings were designed to instruct the subjects in behavioral techniques for weight reduction and in procedures for completing homework assignments (i.e., daily weight records and food diary). The behavioral approaches which were trained included the following: the manipulation of emotional responses (Hall, 1972), food cue elimination (Stuart, 1969), changing the act of eating (Stuart and Davis, 1972), the use of energy to burn up unneeded calories and the development of alternative activities to eating (Ferguson, 1975).

The manipulation of emotional responses involved instructing subjects to verbalize aversive consequences when tempted to overeat (e.g., "my boyfriend will call me fatty") and to verbalize pleasant consequences when the subject was successful in not overeating (i.e., "I'm going to look great"). Food cue elimination teaching techniques involved subjects specifying one place to eat meals and snacks, to leave some food behind on the plate and to take only one helping. Changing the act of eating

included eating slower, chewing food completely and putting utensils down on the table between bites. The development of alternative activities to eating involved encouraging the subjects to engage in pleasant activities which compete with eating such as going for walks, listening to records or working on a craft project. Lastly, the subjects were instructed to burn up unneeded calories by engaging in a 10-minute calisthenics period twice a day.

A number of instructional modalities were employed to facilitate the mentally retarded subjects' understanding of the behavioral procedures during the intervention phase. First, the behavioral procedures were verbally described by the experimenter. The rationale for the procedures was included in the description. Next the subjects were exposed to a video tape presentation of a mentally retarded resident modeling the procedures. After the video presentation the experimenter modeled the procedure for the subjects. This demonstration was followed by each subject practicing the procedure in a simulated situation two times. The experimenter then provided feedback to the subjects on their practice trials. Lastly, at the end of the meeting the experimenter talked individually with each subject about the procedure introduced at the session. This time was also used to review and discuss progress on procedures introduced at past meetings as well as answer questions the subject had about the treatment. All sessions lasted approximately 50 minutes.

During this intervention phase, all subjects received monetary reinforcement for weight lost and for handing in completed homework assignments. Subjects had to lose one pound or more since the previous session's weight to receive reinforcement for weight lost. To be eligible for reinforcement for homework assignments, the subjects had to hand in completed data recording sheets.

The subjects were instructed in the techniques of self-reinforcement. All subjects rated their performance on the techniques and received a grade which was dependent upon total points earned for employing the techniques. The particular grades earned were then exchanged for an envelope which contained self-reinforcement activities (e.g., watching television, reading short positive comments about their performance).

After the intervention phase, Behavior Therapy subjects were randomly assigned into either a fixed or intermittent monetary reinforcement group. During this six week maintenance phase each reinforcement group had a total of six meetings. The meetings included: (a) a video tape presenta-

tion which reviewed the behavioral techniques presented during the intervention phase; (b) an audio tape which reviewed the rationale for the techniques employed during the intervention phase and (c) a review of homework assignments.

Results and Discussion

Figure 1 presents the mean weight loss or gain in pounds for the experimental and control groups during the various treatment phases. The Behavior Therapy subjects lost significantly more weight during the treatment period than the Control group subjects. The Behavior Therapy group had a mean weight loss of 3.60 pounds with a weekly average weight loss of .53 pounds per subject. There was no significant difference between the weight loss of the Behavior Therapy subjects on the fixed or intermittent reinforcement schedule during the maintenance phase or at the time of a 10 week follow-up check. However, a significant difference in weight lost still existed between the Behavior Therapy and Control group subjects at the time of follow-up.

Hall (1972) indicated that the studies which have produced significant weight loss findings have also reported weekly weight loss rates which have

ranged from .50 to 1.00 pounds. The findings of the present study compare favorably as the subjects attained weekly weight losses of .53 pounds per week during the treatment training period and maintained the loss over a four month period. Since institutions are the only environment for many mentally retarded persons, an important treatment consideration is the extent to which staff can assist obese mentally retarded persons in eliminating obesity. The continued implementation of calorie reduction-diets deserve some serious reconsideration due to the relationship between the initiation of a calorie reduction-diet and a significant increase in acts of physical aggression (Talkington & Riley, 1971). The program described here provides residential staff with a treatment which stresses the active, positive participation of the mentally retarded persons as well as the teaching of appropriate eating habits.

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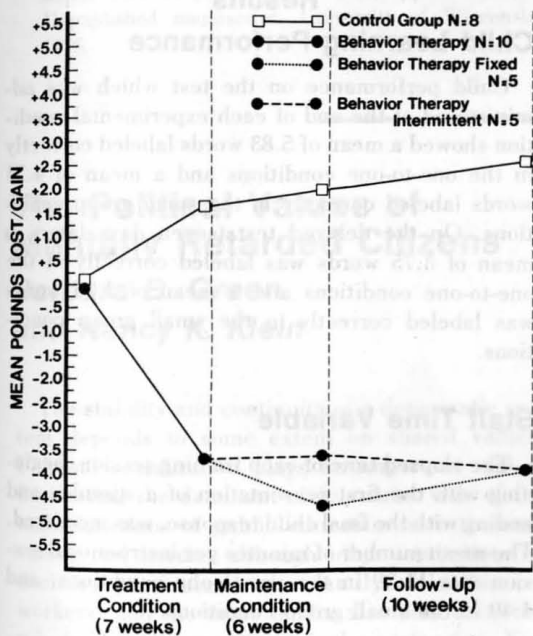


Figure 1. Mean weight loss or gain in pounds for the experimental and control subjects.

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