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AUTHOR Kessler, Lisa; Kalodner, Cynthia

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ABSTRACT

Collaboration between a dietitian and a psychologist has been described as critical to the development and implementation of this weight control programs, and this paper describes such a program conducted through a college student health center. Nutritional components of weight loss programs should provide information which will enable participants to select and consume a nutritionally sound low-calorie diet. The goal of the nutrition component is to promote healthy weight loss through sound nutrition principles, adoption of an individualized exercise program, and a personal exchange diet plan. Behavior modification is an important part of weight loss programs. Mcdification of eating behaviors consists of techniques that encourage the development of a controlled eating style. Stimulus control involves the modification of envi: `mental cues so that undesirable responses will decrease in frequency and desireable responses will be more likely to occur. Contingency management refers to procedures designed to change the consequences for weight-related events in order to modifiy the probability of future occurrences. In this program college students meet wich a registered dietitian individually and then attend a 6-week program. The program stresses appropriate food choices, the benefits of exercise, behavioral chains, cue elimination techniques, current issues in food, and interpreting food labels. Students have reported satisfaction with the class. Dietitians and psychologists need to work together to provide comprehensive weight managment programs. (ABL)

A PSYCHOLOGICAL AND NUTRITIONAL APPROACH TO WEIGHT LOSS: A COLLABORATIVE PROGRAM

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LISA KESSLER, M.P.H., R.D.

NUTRITIONIST
THE UNIVERSITY OF TEXAS AT AUSTIN
STUDENT HEALTH CENTER
P.O. BOX 7339, UNIVERSITY STATION
AUSTIN, TEXAS 78713
(512) 471-6252

CYNTHIA KALODNER, PH.D.

(During the time this p. ogram was conducted was a psychology intern at the University of Texas Counseling and Mental Health Center and currently is a faculty member in the Department of Psychology at the University of Akron, Akron, Ohio 44325.)



Introduction

Eating disorders including obesity, bulimia and anorexia nervosa, represent major health problems in the United States (1). Although a variety of eating disorders exist, obesity is the most prevalent eating problem in our society (1). The prevalence of obesity, the seriousness of the consequences of remaining obese and the resistance to successful treatment cause obesity to be a major challenge to health professionals (2). Approximately 25% of adult Americans are at least 20% above ideal weight (3) and longitudinal data indicate that the prevalence of obesity is increasing. (4)

Weight reduction goals exist for about half of the adult American population ⁽⁵⁾. Each week over a million people participate in group weight loss programs ⁽⁶⁾. College students are also concerned with weight and are involved in weight loss programs. Forty-eight percent of female students report participating in some kind of weight reduction program, including low-calorie diets, the Cambridge diet, weight loss clinics and low-carbohydrate diets ⁽⁷⁾. Often, these weight reduction methods are hazardous to health and/or very expensive.

There appears to be a lack of literature concerning nutrition-related services in Student Health Centers (8). The purpose of this article is to present nutritional and behavioral approaches to weight control and to propose a comprehensive program. The collaboration between a dietitian and a psychologist is critical to the development and implementation of this program.

Nutrition Education

Nutritional components of weight loss programs should provide information which will enable the participants to select and consume a nutritionally sound low-calorie diet ⁽⁹⁾. Topics frequently included in nutrition education include the basic food groups, Recommended Dietary Allowances of vitamins and minerals, guidelines for evaluating the nutritional content of food, fad diets, and low-cost nutritious foods ⁽¹⁰⁾.



The goal of the nutrition component of this weight management program is to promote healthy weight loss through sound nutrition principles adaption of an individualized exercise program, nd a pe onal exchange diet plan.

havior Modification

Behavioral programs treat obesity primarily as a result of environmental factors which lead individuals to overeat and/or underexercise (11). The behavioral treatment of obesity focuses on modification of maladaptive patterns of eating and activity. Behaviorally oriented weight loss programs typically include three types of behavior change strategies: modification of eating behaviors, stimulus control procedures, and contingency management (12, 13). Modification of eating behaviors consists of techniques that encourage the development of a controlled eating style. Stimulus control involves the modification of environmental cues so that undesirable responses (inappropriate eating) will decrease in frequency and desirable responses will be more likely to occur. Contingency management refers to procedures designed to change the consequences for weight-related events in order to modify the probability of future occurrences.

Weight loss programs which successfully reduce total daily caloric intake, do not, without specialized intervention, result in the consumption of a well-balanced diet (14,15). Before participating in a behavioral treatment program, subjects consumed a diet that exceeded two-thirds of the Recommended Dietary Allowances (RDA) for essential vitamins and minerals; after 15 weeks of the behavioral program, subjects did not meet the two-thirds of the RDA for iron, thiamin, or calcium (14). Thus, although participants may lose weight by decreasing the calories consumed, the RDAs may not be met.

Likewise, nutritional information alone fails to solve the weight control problems of the obese (16). Although it was assumed that patients will comply with recommendations provided by dietitians, this rarely occurs (17). The view that nutrition knowledge solely determines nutrition behavior overlooks the complexity involved in food selection, preparation and consumption and ignores the variety of motivations for eating (18).



Both nutrition education and behavior modification techniques are important components of safe and effective weight loss programs. Williams, Martin, and Foreyt (18), in a text on behavioral approaches to dietary management, state that a critical issue in the development and implementation of weight reduction programs is:

the absolute necessity for close collaboration between the behavioral therapists... and the nutritionists. Many behavioral therapists are ill-prepared to provide the nutritional education and diet management that represent an integral part of the total treatment program. Likewise, many nutritionists have little concept of behavioral techniques and even less experience in the instrumentation of behavioral change programs (p.vii-viii).

Procedure

Students are informed of the weight loss program through announcements in the student newspaper, flyers sent to residence halls, sororities and fraternities, and refer als by Student Health Center physicians. Before the first class, students meet with the registered dietitian (R.D.) to determine eligibility, commitment, and to obtain personal health information, height, weight and percentage body fat. Students who present with evidence of bulimia or anorexia are referred to the Eating Disorders Treatment Program. Students who enroll in the weight management program are required to pay \$5.00 for the six week class. Each class meets once a week for 90 minutes. However, including keeping food records, is assigned. Students may weigh in weekly.

<u>Method</u>

Week 1: An introduction to the program is provided by the R.D., who stresses the importance of appropriate food choices, exercise and environment in a successful weight loss program. The R.D. emphasizes the importance of positive thinking and realistic goal setting and reviews ideal body weight, proper calories, and a nutrition knowledge test. The role of behavior



modification is discussed as a way of connecting weight loss with changes in behavior; this provides an introduction to the psychologists part in the program.

Week 2: An explanation of the benefits of exercise and target heart rate is presented and participants develop a personal exercise plan. Another topic involves appropriate food substitutions which decrease fat and calories without sacrificing nutrition. The behavioral component includes cue elimination techniques which decrease the number of external influences to eat. These include eating in only one place, eliminating other activities while eating and removing food from the visual environment.

Week 3: The dietitian provides each student with an individual plan which is built around the student's food preferences and is divided into food exchanges (meat, milk, bread, fruit, vegetable, fat and free foods), based on their carbohydrate, protein and fat content. The plan provides calories to produce a 1-2 lb./week loss with 50-55% carbohydrate, 15-20% protein and 25-30% fat. The psychologist focuses on behavioral chains. This helps participants identify patterns which lead to inappropriate eating. Participants are encouraged to substitute alternative activities to break these chains by developing and referring to lists of activities which can compete with the urge to eat.

Week 4: Experiences with the exchange plan are reviewed with the dietitian. The video "Fear of Fat: Eating Disorders" is viewed and a discussion on societal attitudes towards weight follows. The behavioral component involves more cue elimination techniques, including leaving some food behind, throwing away leftovers and removing serving dishes from the table, and a follow up of progress with breaking behavioral chains.

Week 5: A question and answer period based on current issues in nutrition is held. Topics range from artificial sweeteners to caffeine. Recipes and choosing wisely when eating out are discussed. The psychologist stresses changing the act of eating, which is accomplished by putting eating utensils down between bites and incorporating pauses during meals. Pre-planning is taught



as a method to decrease impulse eating. Participants are provided with a daily behavior checklist which contains a variety of behavioral techniques and is useful to monitor changes in behavior.

Week 6: The dietitian teaches participants how to interpret food labels and each student practices this skill by reporting on a food product. Both the dietitian and the psychologist discuss means of support to continue weight control. Hints for dealing with social situations involving eating and obtaining support from friends and family are discussed.

Evaluation

At the end of the weight management program, the students completed 27 anonymous evaluation forms. On the question, "How satisfied were you with this weight management program?" Fifty-two percent responded completely satisfied, 44% indicated better than average satisfaction and 4% reported average satisfaction with the class. Future research plans include further evaluation on the weight loss, percentage body fat change and quality of dietary intake for participants in this program.

It is apparent that collaboration between nutritionists and psychologists is critical in the treatment of obesity. It is possible that this cooperative approach could serve as a protocol for other Student Health Centers and Counseling Centers to join efforts to provide comprehensive care. As students continue to enter college with the need and desire to lose weight, it is recommended that dietitians and psychologists work together to provide comprehensive weight management programs.



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