THE UNIVERSITY OF ARIZONA College of Medicine

Department of Family and Community Medicine

Healthy Families in Healthy Communities

Is Showing Up Really 50% of the Job? Targeting Success for Weight Loss in Behavior Modification Forums

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Introduction

Over two thirds of the American public are overweight or obese. The sequelae of obesity includes diabetes, heart disease, stroke, and even some forms of cancer. The Diabetes Prevention Program is a major study that showed modest weight loss through lifestyle modification can effectively prevent diabetes. It has been estimated that a successful intervention for weight loss could save over $7 billion for the United States health system. [1] However, most weight loss programs have highly variable success rates and are often expensive. In order to maximize the effectiveness of weight loss interventions, it is important to understand variables associated with successful weight loss. The goal of this project is to review the literature to identify characteristics and behaviors of those who successfully lose weight after participating in a voluntary lifestyle modification program.

Methods

A Medline Plus search was completed using "weight loss", "predictor" and "success" as key words. Inclusion criteria were: relevance, published in last 8 years, RCTs, reviews, or retrospective studies. Four studies and one review article were chosen that pertained to predictors of weight loss after behavioral intervention in those with BMI >25.

Results

The studies reviewed had different primary outcome targets. Two studies had any weight loss as the outcome,[5,6] while others focused on 5% weight loss,[4] or those in the top quartile of weight loss.[2] The systematic review used attendance as a surrogate marker for success in weight loss. For the primary outcome of weight loss, two studies found attendance as a predictor of success. Please refer to Table 1.

Table 1. Review Results

Study – patient population SS=sample size	Primary outcome (success measure)	Findings associated with success
Women, BMI 30-45, age 21-65 [2] SS=148, retrospective study	Top 25% of weight loss in group	ATTENDANCE, increased baseline tension, decreased initial body satisfaction
Systematic review of 61 studies of overweight adults (BMI >25) [3]	Attendance	Lower treatment expectations, fewer previous weight loss attempts, high self efficacy
Women, age 50-55, BMI 25-38, nonsmoker, no comorbidities [4] SS=158, RCT	≥ 5% weight loss	Less previous dieting, moderate weight goals, higher exercise confidence, smaller waist to hip ratio
Postmenopausal women (BMI >25) [5] SS= 123, RCT	Weight loss	avoiding midmorning snacks
Age 18-55 , (BMI 25-39.9) [6] SS=30, RCT	Weight loss	ATTENDANCE, increased exercise self efficacy at course end

Conclusions

Overall, the data shows that increased attendance is highly associated with improved outcomes. Psychologically, those with higher exercise and self-efficacy and lower expectations for weight loss achieved higher weight loss goals. However, it also appears that those who benefit the most are those who feel the worst (higher levels of tension on a day to day basis, lower views of their own bodies, and lower expectations for success).

Due to the large number of variables evaluated and the small sample sizes included in these studies, it is difficult to draw definitive conclusions. Larger studies are needed to further assess predictors of weight loss success. Two of the studies link fewer previous dieting attempts to increased attendance and weight loss. [3,4] Ongoing research may allow for improved discrimination of participant readiness in the clinic setting. Furthermore, it may then enable practitioners to pinpoint areas of growth for "unready" patients prior to partaking in behavioral modification programs. If a successful participant profile could be constructed through further research, then applied clinically, first time success and overall cost effectiveness of lifestyle management interventions could be greatly increased. One step closer to a $7 billion savings

References

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