

Weight-Loss Strategies of Young Adults: Exercise Versus Dieting

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Abstract

This cross-sectional survey study examined weight control practices of 2,092 male and 1,748 female freshman students aged 18 years. For women, the desire for weight loss was observed at all levels of body weight. Most women (79%) wished to weigh less than their current weight, and 23% were following a restricted-calorie diet. In contrast, more men wished to gain (46%) rather than lose weight (32%), and only 3% were dieting at the time of the study. A comparison of weight control practices of men and women who wished to lose weight showed that women restricted calories far more frequently than did men. In contrast, although men were more likely to use exercise for weight control than were women, the differences between the sexes were small. A combined analysis of dieting and exercise behaviors showed that while men relied almost exclusively on intensive exercise as opposed to dieting, women employed exercise as well as dieting for the purpose of weight control.

Key words: weight control, body image, dieting, exercise, gender differences
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Introduction

It is generally accepted that men and women differ in their weight control practices. While women predominantly diet to lose weight, men are reputed to use physical activity as the principal strategy for weight control (4). Studies conducted with normal-weight and overweight subjects have pointed to gender differences in the use of dieting versus exercise for weight control (16,17,19).

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However, many non-clinical studies of weight control practices have simply contrasted men and women. Now, while most women desire to lose weight (14), men tend to show more divergent attitudes (9,18,20). In contrast to women, dissatisfaction with body image in young men typically operates in the direction of weight gain (4,17,18). Studies conducted with high-school and college students have shown that the chief male concern at that age is to gain weight, size, and strength. As a result, adolescent males often perceive themselves as underweight or too thin (6,8). Studies on "ideal" somatotypes (20) have shown that almost 70% of college-age men were dissatisfied with their body somatotype and preferred the more muscular ideal. The more muscular body image is usually associated with added weight (10).

While weight control among young women operates almost exclusively in the direction of weight loss, the concept of weight control among young men is more likely to mean weight gain (4). Consequently, data averaged across all male subjects may be potentially misleading, and it is important to distinguish between men who seek weight loss, and those who seek a more muscular build, generally interpreted as weight gain (4,17,18,20).

While it is generally accepted that most women desire to be thinner than they are, estimates of how many young men wish to gain rather than lose body weight have varied considerably across studies. In a study of boys aged 12 to 22 years (13), 16% were reported as wishing to gain body weight.

Another study of high school boys (17) reported that 28% were trying to gain weight, and that only 16% were on weight-reducing regimens. Similar results for high school boys were reported by the Youth Risk Behavior Survey (18). However, other studies suggest that as many as 32% of college males were dieting to lose weight (12), and that 50% of high-school freshman males had dieted in the previous six months (2). Most recent articles in the popular press have suggested that the male focus on body image was leading to compulsive exercising and eating disorders among men.

We have previously reported (4) that approximately

Table 1. Respondent characteristics

	Men (n=2,092)		Women (n=1,748)	
Age (yrs)	17.7	(0.6)	17.7	(0.7)
Weight (lbs)	158.3	(24.7)	126.0	(18.6)
Height (in)	70.5	(3.0)	64.9	(2.7)
BMI (kg/m ²)	22.2	(2.9)	20.9	(2.6)
Desired weight (lbs)	160.5	(21.8)	118.6	(13.2)
Desire for wt loss (lbs)	-1.9	(13.4)	7.4	(9.9)
On diet now (%)	3		23	

The data are means and standard deviations (in parentheses).

32% of male freshman students wished to weigh less than their current weight. That study also showed that women generally relied on restricted-calorie dieting to lose weight, while men were more likely to use physical exercise for weight control. National survey studies of adults (19) also showed that men used exercise for weight control much more frequently than did women. This emphasis on exercise as opposed to dieting was thought to protect adolescent males from eating disorders. The major risk factor for the development of anorexia and bulimia nervosa may be dieting itself (4).

However, past findings of gender differences in the use of diet and exercise may be outdated. Recent national data on the use of exercise versus diet for weight-loss purposes, based on the 1989 Behavioral Risk Factor Survey and the National Health Interview Survey, reported no differences between the sexes (3,9), while some studies with high-school students have actually shown that girls may use exercise for weight control more frequently than do boys (17). Given the increasing emphasis on exercise in weight reduction programs, notably those aimed at adolescents, the choice of dieting versus exercise for weight control among young men and women is a topic of particular interest.

Methods

The study was based on a questionnaire distributed during the orientation program to all students in the entering freshman class of a large university in the Midwest. Among other variables, the questionnaire queried height and weight, desired weight, and the extent of dieting and physical exercise. Participation in the study was voluntary and anonymous. Study protocols had been approved by the institutional review board. The methodology has been described in greater detail in an earlier publication (11). Comparisons of subject characteristics and dieting and exercise variables were based on *t*-tests and on Chi-square tests.

Results

The data were based on responses of 2,092 men and 1,748 women who returned completed questionnaires: a

Women: BMI by Desired Weight Change

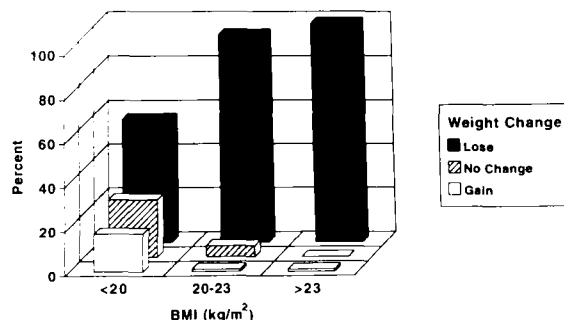


Figure 1: Desire for weight change among women as a function of body mass index (BMI).

response rate of 90%. Respondent data are summarized in Table 1. Mean weights were 158.3 lb for men and 126.0 lb for women. The observed values were close to the mean weights of 18-year-old men (156.6 lb) and women (130.0 lb), and to their body mass indices (BMI = weight kg/height m²), as obtained from the NHANES II dataset (15). The measure of BMI in adults is largely independent of stature (7) and is moderately well correlated with body fatness (1).

As expected, women dieted to lose weight much more frequently than did men. Almost half the women (46%), but only 11% of the men reported dieting to lose weight sometimes, often, or always (p<0.01). As shown in Table 1, women wished to lose an average of 7.4 lbs; while men wished to gain an average of 2.1 lbs (p<0.01). The prevalence of restricted-calorie dieting to lose weight at the time of the survey was 23% for women and 3% for men (p<0.01.)

Subsequent analyses separated men and women on

Table 2. Summary of dieting and exercise variables as a function of desired weight change

	Lose		Same		Gain	
	Men	Women	Men	Women	Men	Women
N=	662	1385	463	226	966	136
Frequency of dieting	%	%	%	%	%	%
Never, rarely	75	42	93	42	97	93
Sometimes	20	37	6	37	2	6
Often, always	6	21	1	21	1	1
Intensive exercise (>1hr/day):						
Never, rarely	49	58	63	70	70	76
Several times/month	17	16	8	11	6	7
More than once/week	22	17	17	12	12	10
Daily	12	9	12	7	12	7

the basis of their reported desire for weight change. The desire for weight change (weight loss or weight gain) was defined as the difference in pounds between the individual's reported current and desired weights. Positive scores indicated a desire for weight loss, while negative scores indicated a desire for weight gain. Most women (79%) wished to weigh less than their reported body weight. In contrast, most men (46%) wished to weigh more than their reported weight. Thirty-two percent of the men wished to lose weight. Zero scores, denoting no desire for weight change, were obtained for 13% of the women and 22% of the men.

Proportions of women desiring weight loss or weight gain, plotted against ranges of BMI values are shown in Figure 1. Relative underweight was defined as BMI below the 25th percentile for sex and age (18 years). Relative overweight was defined as BMI above the 75th percentile for sex and age. The latter value was set lower than the conventional cutpoint for obesity, defined as BMI above the 85th percentile for men and women in the third decade of life (20-29years) (15).

It can be seen that the desire to lose weight rose with increasing BMI values. Most underweight women (BMI<20.0), and virtually all normal-weight and overweight women wished to weigh less than their current weight. The correlation between desired weight change in pounds and BMI values was high and significant ($r=0.80$; $p<0.001$).

Men: BMI by Desired Weight Change

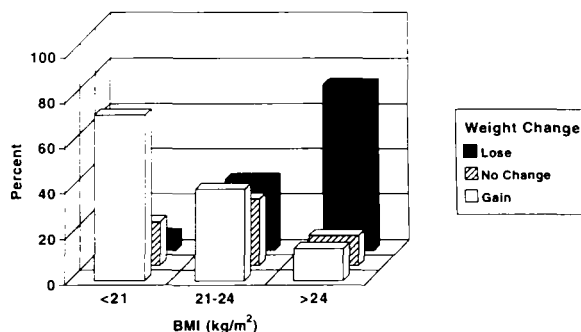


Figure 2: Desire for weight change among men as a function of body mass index (BMI).

The desire for weight-loss among males also increased with BMI values, as shown in Figure 2. However, most underweight men (BMI<21.0) wished to gain weight, as did most (40%) of the normal-weight men. Only 30% of normal-weight men (as opposed to 94% of normal-weight women) wished to lose weight. Again, the correlation between desired weight change in pounds and BMI was high ($r=0.61$; $p<0.001$).

Rather than comparing all men to all women, the proper gender-based comparison of weight control strategies should be between those women who wish to lose weight (i.e., most women), and the far smaller subgroup of men who also wish to lose weight. Our data

Women Who Desire Weight Loss: Dieting Frequency by Vigorous Exercise for Weight Loss

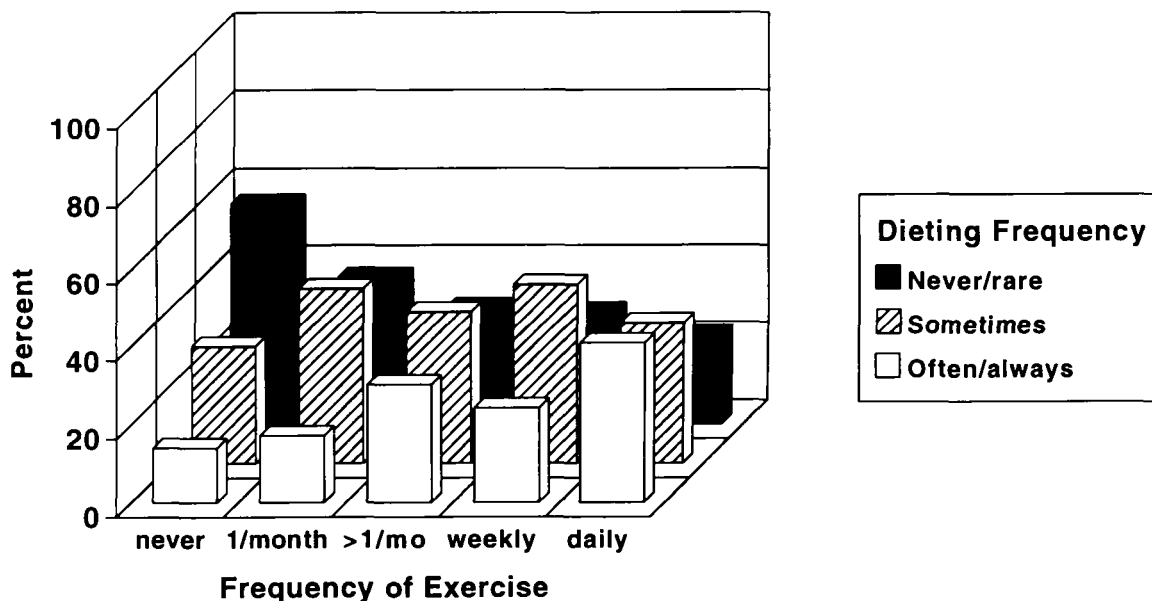


Figure 3: Frequency of dieting and exercise behaviors among women.

Men Who Desire Weight Loss: Dieting Frequency by Vigorous Exercise for Weight Loss

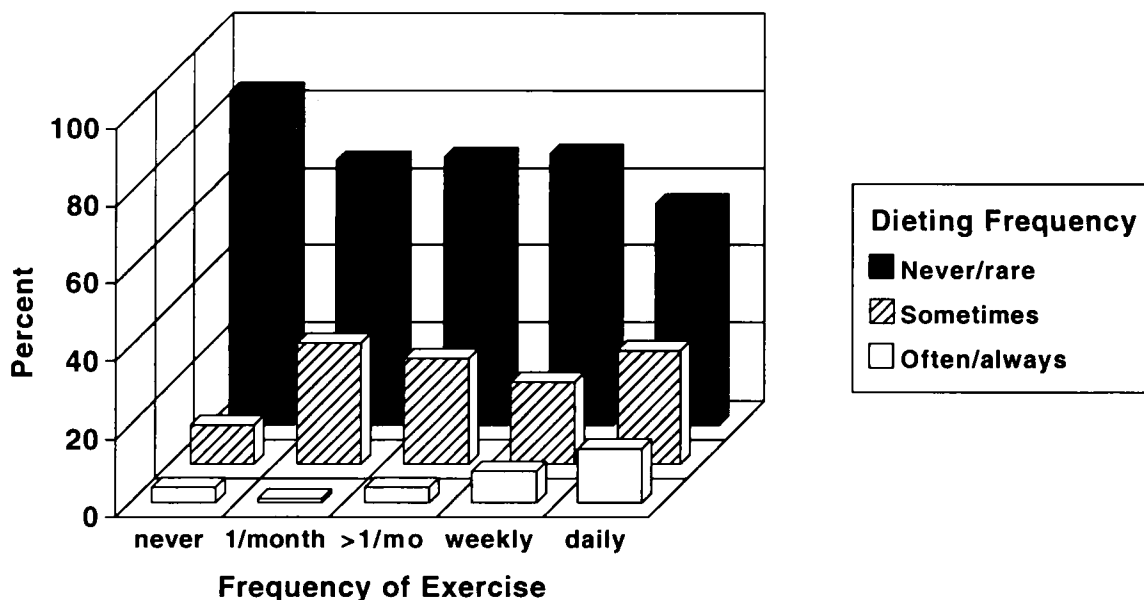


Figure 4: Frequency of dieting and exercise behaviors among men.

showed that dieting to lose weight was far more common among women than among men, regardless of whether the women wished to lose or maintain body weight. As shown in Table 2, women reported a dramatically higher prevalence of restricted-calorie dieting than did men, whether for the purpose of losing or maintaining body weight. Three times as many women (28%) as men (9%) who wished to lose weight reported being on a restricted-calorie diet at the time of the study ($p < 0.01$).

In contrast, the gender-related differences on exercise variables, though significant, were less striking. In agreement with previous results (4), men reported a higher frequency of vigorous exercise for weight control than did women. As shown in Table 2, men were somewhat more likely than women to use exercise for the purpose of weight loss, as well as weight gain, $p < 0.01$. As expected, there were differences in the type of exercise selected. Women favored aerobics, running, and dance, while men selected weight training, basketball, and racquet sports.

A combined analysis of dieting and exercise variables revealed further gender-related differences. Increased dieting among women was associated with increased exercise. Figure 3 shows that women who dieted often or always were also likely to engage in vigorous exercise for weight control. In other words, dieting and exercise variables among women were closely linked. In contrast, men showed no such relationship.

As shown in Figure 4, men who exercised weekly or daily were unlikely to be dieting as well.

Discussion

It is generally believed that weight-loss strategies differ widely between the sexes. Women are said to diet, while men rely on exercise for weight control. The present study, based on recent survey data, shows that exercise for weight loss is a well-accepted practice among young women.

The present study compared weight control practices of men and women, after separating them by the desire for weight change. While the desire for weight loss among young women is a well-documented trait (6,16), the desire for a more muscular build still needs to be recognized as the most common attitude among young men (4,18). Almost half (46%) of male freshman students expressed a desire to gain weight, while only 32% wished to lose weight. However, restricted-calorie dieting to lose weight among men was uncommon. Despite reports of high prevalence of dieting among male high-school and college students (2,12), only 3% of the men were restricting calories to lose weight.

The desire for weight gain and the very low prevalence of dieting among men may be due to the young age of this population. While adolescent males may associate body weight gain with a more muscular build, older men most likely do not. The prevalence of dieting for weight control among men is reported to rise as a

function of age (9). A recent study, based on adults over the age of 18, showed that there were no differences between men and women when it came to selecting strategies for losing weight. While few subjects (9% women; 12% men) reported trying to lose weight by physical activity alone, 31% of men and 31% of women reported using only caloric restriction, while 48% of the men and 53% of the women used both strategies (3).

In our study, women were far more likely to use caloric restriction than were men, whether for the purpose of losing or maintaining body weight. These differences were dramatic. Of the women who wished to lose weight, 28% were pursuing a calorie-restricted diet at the time of the study. In contrast, of the men who wished to lose weight, only 9% were currently dieting.

Eating disorders, anorexia and bulimia nervosa, represent a pathological extreme of a continuum of behaviors directed at weight control (5). Women dieters are more likely to become bulimic than are non-dieters and are more likely to engage in tobacco, alcohol, and marijuana use (11). The relationship between restrictive dieting and tobacco and alcohol use extends in a continuous graded manner from the clinical to subthreshold levels of those behaviors. Excessive energy restriction and inappropriate weight control practices may thus have a profound impact on adolescent health that extends beyond nutrition and body weight (11).

Men engaged somewhat more frequently in physical exercise for weight control than did women. The frequency of vigorous exercise was significantly higher among men than among women, regardless of whether the men wished to lose or to gain weight. However, while dieting was far more prevalent among women than among men, the two groups no longer showed major differences in the use of exercise for weight control (4).

Furthermore, while men exercised but rarely dieted, women dieters were also likely to use intense exercise for weight loss. These data suggest that exercise for weight control has gained acceptance among women and should be stressed in the development of new programs for weight control.

Acknowledgments

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CLARIFICATION

In an article by T. Kekes-Szabo et al. in the September 1994 issue entitled, "Development and Validation of Computed Tomography Derived Anthropometric Regression Equations for Estimating Abdominal Adipose Tissue Distribution," reference #14 should have been cited as "in press." The correct citation for the article, which is published in this issue of **OBESITY RESEARCH**, is as follows,

Hunter GR, Snyder S, Kekes-Szabo T, Nicholson C, Berland L. Intra-abdominal fat values associated with the risk of possessing elevated blood lipid and blood pressure. *Obes Res.* 1994;2:563-568.

Please note that reference 14 on pages 450, 454, and 456 is to this citation.

OBESITY RESEARCH regrets the error.